BUILDING DEMOLITION SPECIFICATIONS
FOR
DALLAS HOUSING AUTHORITY
EDGAR WARD PLACE
DALLAS, TEXAS
FEBRUARY 1995

093636

JONES & NEUSE

GULF COAST REGION OF RMT

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DALLAS HOUSING AUTHORITY
BUILDING DEMOLITION

LIST OF DESIGN SPECIFICATIONS

SPECIFICATION NO. SPECIFICATION TITLE

DIVISION 0 - BID DOCUMENTS

Bid Documents to be provided by DHA based on HUD requirements. RMT/JN to review and incorporate.

DIVISION 1 - GENERAL REQUIREMENTS

01010 Summary of Work
01011 Prequalification Requirements
01046 Control of Work
01100 Special Project Procedures
01101 Safety, Health and Emergency Response Requirements
01200 Project Meetings
01300 Submittals
01311 Construction Schedules
01380 Construction Photographs
01500 Temporary Facilities
01510 Temporary Site Utilities
01540 Site Security
01562 Dust Control
01580 Project Identification and Signs
01700 Contract Closeout
01720 Project Record Documentation

DIVISION 2 - SITE WORK

02060 Demolition
02100 Site Preparation
02200 Removal of Sidewalks and Other Site Improvements
02222 Backfilling and Compaction
02270 Sedimentation and Erosion Control
02444 Chain Link Fence Blinding
02576 Pavement Resurfacing and Curb Installation
02901 Miscellaneous Work and Cleanup
02930 Loaming, Hydroseeding and Erosion Control

DIVISION 13 - SPECIAL CONSTRUCTION

13740 Removal and Disposal of Transformers, Ballasts and Telephone Wires and Poles
13763 Handling, Testing, Transportation, and Disposal of Excavated Soil, Roadways and Other Site Improvements
13770 Decontamination Facility Collection, Transportation, and Disposal of Decontamination Water

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List of Drawings		Sheet
1. SITE MAP		
2. CONSTRUCTION DRAWINGS		
Mechanical - Building Types	A and B	M1
	C.1.2 and K.L.M	M2
	D and E.1.2	M3
	F.1.2 and G.1.2.3	M4
	H and J.1.2.3	M5
Mechanical Details		M6
		M7
Floor Plans - Units	A and B	A1
	C_1 and C_2	A2
	K, L and E_1	A3
	M and E_1	A4
	D and G_2	A5
	F_1, F_2, G_1 and G_3	A6
	H, J_1, J_2, and J_3	A7
Floor Plans - Conversions		A3 Sheet #3
Elevations		A8
		A9
		A10
3. GRADING PLAN, SITE AND CURB GRADES		15L
		16M
		12H
		13J
		14K
4. ELECTRICAL DISTRIBUTION		E12L
		E13M
		E9H
		E10J
		E11K
5. GAS DISTRIBUTION SYSTEM		73L
		74M
		70H
		71J
		72K

DALLAS HOUSING AUTHORITY
EDGAR WARD PLACE
DALLAS, TEXAS
(CONTINUED)

DALLAS HOUSING AUTHORITY
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BUILDING DEMOLITION BID ITEM SHEET

ITEM NO.	DESCRIPTION	UNIT	UNIT PRICE
1	Insurance, Bonding Permits, etc.	Lump Sum	
2	Mobilization	Lump Sum	
3	Site Preparation	Lump Sum	
4	Temporary utilities	Month	
5	Temporary facilities	Month	
6	24 hour security	Month	
7	Temporary fence and blinding	Lump Sum	
8	Submittals	Lump Sum	
9	Equipment, including protective equipment for personnel and monitoring	Month	
10	Regulatory required personnel training, medical monitoring, record keeping, etc.	Month	
11	Removal and proper disposal of ballasts	Each	
12	Removal and proper disposal of transformers	Each	
13	Removal and proper disposal of mercury vapor lights	Each	
14	Removal and proper disposal of other electrical appurtenances (poles, switches, etc.)	Lump Sum	
15	Removal of miscellaneous infrastructure, barrier poles, clothes line poles etc.	Lump Sum	
16	Demolition of entire one story non regulated ACM buildings and appurtenances	Each	
17	Demolition of entire one story buildings containing regulated ACM	Each	
18	Partial demolition of one story buildings containing regulated ACM	Each	
19	Partial demolition of one story buildings containing non regulated ACM	Each	
20	Demolition of entire 2 story buildings containing non regulated ACM (Type 2)	Each	
21	Demolition of entire 2 story buildings containing regulated ACM	Each	

DALLAS HOUSING AUTHORITY
EDGAR WARD PLACE
BUILDING DEMOLITION BID ITEM SHEET
(CONTINUED)

ITEM NO.	DESCRIPTION	UNIT	UNIT PRICE
22	Partial demolition of 2 story buildings containing regulated ACM	Each	
23	Partial demolition of 2 story buildings containing non regulated ACM	Each	
24	Demolition of entire combination one and two story buildings containing non regulated ACM	Each	
25	Demolition, loading transportation, and disposal of parking areas and building foundations	Loaded Cubic Yard	
26	Handling, loading, transportation and disposal of regulated ACM demolition debris	Loaded Cubic Yard	
27	Handling, loading, transportation and disposal of nonregulated ACM demolition debris	Loaded Cubic Yard	
28	Decontamination	Lump Sum	
29	Stormwater Controls and Maintenance	Lump Sum	
30	Final Site Preparations 1. Backfill and grade with DHA backfill 2. Hydroseed all disturbed areas 3. Final grading and erosion control	 Cubic Yard Acre Lump Sum	
31	Project Identification and signs	Lump Sum	
32	Project photographs and video	Lump Sum	
33	Demobilization	Lump Sum	
34	Closure Report Preparation	Lump Sum	
35	Replacement of sidewalks	LF	
36	Replacement of curbs and gutters	LF	
37	Removal, handling, transportation, and disposal of 1,300 building bell piers.	Lump Sum	

Division 1

General Requirements

SECTION 01010

SUMMARY OF WORK

PART 1 GENERAL

1.01 INTRODUCTION

A. The location of this project is the Edgar Ward Place Neighborhood of the Dallas Housing Authority (DHA). This area is also part of the Operable Unit No. 2, at the RSR Superfund Site in West Dallas, Texas, hereinafter referred to as the Site. The Site is just South of the Trinity River and North of Interstate 30. Primary access to the Site is directly off Hampton Road, Bickers Street and Canada Drive.

1.02 SCOPE OF WORK

A. Furnish all labor, supervision, permits, materials, equipment, tools, services and incidentals to perform building demolition and site improvements. All work shall be as specified herein and shown on the Drawings. General information regarding the site, previous sampling programs and conceptual design is presented in the Demolition and Removal Action Workplan prepared by RMT/JN dated December 1994 (Appendix A). The Contract Documents shall consist of these Specifications and Drawings, the Stormwater Pollution Prevention Plan (SWPPP), Demolition and Removal Action Workplan and previous design drawings entitled "Project-Tex-9-11-G for the Housing Authority of the City of Dallas, Texas" by Forrest and Cotton Consulting Owner's Representatives and Smith and Mills Consulting Architects dated March 26, 1952.

B. The Contractor shall be responsible for loading all building rubble and materials, and for transportation and disposal of all building rubble, materials and any liquid wastes generated during the Work.

C. In general, the Contractor's work shall include, but is not limited to, the following:

1. Provide all applicable warranties, performance and payment bonds, insurance, and permits.

2. Provide a Safety, Health and Emergency Response Plan, and a Demolition Plan, including a Construction Stormwater Plan and a Severe Inclement Weather Plan. In addition, provide a Temporary Facilities Plan, Work Schedule, and Transportation and Disposal Plan for all rubble and materials and liquid wastes generated during the work for review by the Owner's Representative and approval by the Owner.

3. Mobilization and demobilization of all equipment and systems at the Site necessary to perform the Work.

4. Provide temporary utilities. The Owner will provide a source of water; however, it shall be the responsibility of the Contractor, at his own expense, to provide temporary connections and route the water to its usage area. The Contractor shall be responsible for insuring that all water faucets are off

or the water hoses running from them disconnected, when not in use and, as a minimum, at the end of each work day. The Contractor is responsible for adherence to all applicable regulations and guidelines applicable to water disposal and runoff.

5. The Owner will not provide electricity to the site for use of the Contractor. The contractor will be expected to obtain electrical services.

6. The Owner will pay the cost of the water for the duration of the Project. The cost of excessive waste or abuse of provided utilities, as determined by the Owner's Representative will be backcharged to the Contractor and deducted from the Contract Amount.

7. Provide temporary facilities including perimeter fencing, fence blinding, erosion control, storage areas, decontamination area and other necessary facilities as shown on the Drawings or as required. Layout of the temporary facilities shall be coordinated with demolition, transportation and off-site disposal activities in such that the temporary facilities do not interfere with these activities. All demolition activities shall be coordinated with asbestos contractor to prevent interference with other site activities.

8. Provide temporary chain link fences, fence blinding, and gates around perimeter of the Site.

9. Furnish 24-hour site security. A minimum of one armed security guard will be on site 24-hrs./day. Perimeter rounds will be a minimum of twice every 8 hours.

10. Furnish all health and safety equipment and decontamination materials for all employees at the site.

11. Provide detailed site preparation plan, utility severance plan, reconnection plan, and temporary parking area including contact numbers for utility owners.

12. Provide demolition of existing buildings along with foundations and piers, removal of sidewalks, parking areas, basketball courts and other site features as shown on the Drawings and specified herein.

13. Provide soil replacement activities including all earthwork according to the Drawings and as specified herein. The Contractor shall provide clean fill as required for backfilling where excavation and/or removals are performed.

14. Provide erosion and dust control.

15. Provide removal of electrical transformers potentially containing PCBs, mercury vapor lamps and light ballasts as shown on the Drawings and specified herein. The contents of the these transformers shall be determined prior to demolition of buildings by the Contractor.

16. Provide finish grading, loaming and hydroseeding to areas disturbed during demolition. Finish grading will comply with the final grading plans prepared by the Owner's Representative.

17. Asbestos Abatement has been performed by others in the structurally sound buildings to be demolished. The structurally unsound buildings either whole or in part will be abated of pipe insulation and transite removed to the fullest extent possible. The remaining pipe insulation and transite will be wet demolished with the building and must be managed separately as Class I nonhazardous ACM debris.

18. Contractor shall be responsible for obtaining all applicable waste classification codes.

19. All supplied drawing, waste volumes, etc. are for reference purposes only. Contractor is responsible for verification of quantities and actual site features and conditions.

1.03 CONSTRUCTION SCHEDULE

A. Contractor shall perform work in the following order:

1. Obtain all permits, including Disposal Approvals.

2. Submit Safety and Health Emergency Response Plan, Demolition Plan, Temporary Facilities Plan, Work Schedule and Transportation and Disposal Plan.

3. Site mobilization.

4. Site preparation, including clearing, security fencing and blinding, construction of decontamination facility and temporary facilities.

5. Removal of transformers, mercury vapor lamps, and light ballasts.

6. Demolition of buildings.

7. Crush debris prior to transportation and disposal.

8. Breakup and removal of foundations, piers, slabs, sidewalks, basketball courts and other site features.

9. Breakup and removal of designated parking areas.

10. Excavation of soil may be required following the demolition and removal of all debris.

11. Backfill, grade, loam and seed all affected areas of demolition.

12. Demobilization.

1.04 LABORATORY REQUIREMENTS

A. The Contractor shall employ a state certified laboratory, as specified in Section 01046, to perform all analyses required by the Contractor for completion of his work.

1.05 ABBREVIATIONS AND REFERENCES

A.

ACI	- American Concrete Institute
AISC	- American Institute of Steel Construction
AISI	- American Iron and Steel Institute
ASTM	- American Society for Testing and Materials
NFPA	- National Fire Protection Association
OSHA	- Occupational Safety and Health Administration
RCRA	- Resource Conservation Recovery Act
TSCA	- Toxic Substances Control Act
NCTCOG	- North Central Texas Council of Governments

END OF SECTION

SECTION 01011

PREQUALIFICATION REQUIREMENTS

PART 1 GENERAL

1.01 INSTRUCTIONS AND PROCEDURES

A. These instructions are intended as an aid to the Bidder as well as to provide a consistent and equitable basis for evaluation of Qualifications during the prequalification process.

B. Qualification Package Preparation

1. The Bidder shall sign and submit the following Certifications and Documentation:

a. Provide certified copies of insurance policies, along with sample copies of any and all endorsement required by the Agreement for this project by the Bidder within 10 calendar days of the date of award.

b. Provide documentation including the name of surety which states that the bonds required by the Agreement for this project can be secured by the Bidder within 10 calendar days of the date of the Notice of Award.

c. Drug-Free Workplace.

d. The Contractor shall not have any contact with the media regarding this project. Media inquiries shall be directed to the Owner.

2. Pages in the Qualification shall be numbered. The Qualification shall be limited to a maximum of 100 pages. If more than 100 pages are submitted, the Qualifications Submittal will be evaluated based on only the first 100 pages.

3. A suitable table of contents shall be provided for ready reference to key sections, figures, and illustrations. Major sections should have tabs corresponding to the table of contents. The Qualification text should be typed, single spaced, using courier font (10 cpi) or equivalent, and printed, unreduced in size, on 8-1/2" x 11" paper. Illustrations shall be legible on 8-1/2" x 11" paper and should be located in the sections which reference the illustrations.

4. No material shall be incorporated by reference only and any such material will not be considered in the evaluation process.

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C. Qualification Identification

1. Qualifications shall be submitted by Bidders who conform to one of the following:

   (a) Firms which are prime contractors, or

   (b) Joint ventures, where the legal venture is the prime contractor and Bidder must provide documentation to show legal partnership. Joint ventures must comply with all Contractor Qualifications.

   (c) All bonding for this Agreement is required to cover the full value of the Agreement and all contracting parties.

2. Prime Contractors which plan to subcontract 25% or greater of the project to a single subcontractor shall submit Teaming Agreements which have been signed by the Prime Contractor and each subcontractor who will perform 25% or more of the project. The Teaming Agreement must clearly specify the scope of services to be provided by the subcontractor.

3. Contractors are required to have the 40 hour OSHA Health and Safety Training to attend the pre-bid meeting. If prime or subcontractor is responsible for asbestos abatement and transite removal, then all personnel must have applicable certifications to attend the pre-bid meeting. Proof of training certificates will be requested at the pre-bid meeting.

4. Qualifications received from Bidders who do not conform to the above will be returned as "Unacceptable."

D. Submitting Qualifications

1. The Qualification Package shall be submitted as part of the Bid Submittal. Qualifications shall be separately bound from the remainder of the bid.

E. Scoring

1. Qualifications having included all required certificates and other documentation and having a score of 70 or above in the Point System category will be classified as "Acceptable." All other Qualifications will be classified as "Unacceptable."

1.02 STATEMENT OF QUALIFICATION - FORMAT AND SCORING SUMMARY

A. The information in the Bidder's Qualification Package shall be presented in the same order and sequence as outlined below. This portion of the Qualification Package will be evaluated and scored. Scoring values are provided in Paragraph 1.02D.

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B. Project Organization

1. Describe the proposed project organization the Bidder plans to provide.

a. Organizational Charts

(1) Provide organizational charts, which include key personnel and all subcontractors and indicate the MBE/WBE subcontractors that will be used to meet the MBE/WBE requirement.

b. Key Personnel

(1) Provide a resume for each of the key personnel named on the project organization charts. Key personnel including supervisors, will be required to attend the pre-bid and pre-construction meetings. The resumes of the project team should clearly show proposed project job title; education and dates thereof; special qualifications worthy of rating; and complete experience record showing title and specific duties, responsibilities, and assignments by years.

c. Resource Utilization Plan

(1) Resources

a. Describe your technique for assuring efficient utilization and balance of all manpower, material and equipment. Include in your submission any other data you deem necessary to describe your firm's capabilities with regard to efficient balance and utilization of resources.

C. Experience

1. Bidders must document the experience, technical competence, and past record of the firm or joint venture and major subcontractors listed in the above section. All contractor personnel on site shall have at least two years experience with hazardous waste remediation sites. Exclusions for this experience requirement may be made for workers performing housekeeping and other ancillary duties not directly associated with potentially hazardous waste remediation or demolition. Bidders shall list ten of their most recent projects involving building demolition, remedial projects with stormwater protection plans, PCB experience, and asbestos abatement. Experience on these projects shall clearly demonstrate the Bidder's ability to perform the work required by the Contract Documents.

2. For each project provide information on the topics and in the sequence as outlined below.

a. Reference

(1) References will be contacted. If references are not provided for the project, the project will not be evaluated and may render the submittal "unacceptable". List the following for each project:

a. Project name and location.

b. Bidder's roles and responsibility.

c. Specific client contacts. Give name(s) and phone number(s) of the Owner.*

d. Give name(s) and phone number(s) of the person(s) in charge.*

e. Give name(s) and phone number(s) of the regulatory agency personnel in charge of this project.*

* Verify the phone numbers prior to submitting the Qualification, and provide a second contact if the primary contact is frequently unavailable.

b. Construction Management

(1) Briefly describe the project with regard to the following items.:

a. Contract size and type of work.

b. The original contract amount and the final contract amount including all contract amendments (list all change orders).

c. Original schedule and the final schedule.

d. Liquidated or actual damages assessed for delay in meeting completion dates.

c. Excavation Performance

(1) Briefly describe the excavation activities on the projects including but not limited to the following items:

a. Volume of materials.

b. Material types/consistencies.

c. Waste management techniques.

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d. Asbestos Abatement

(1) Type of abatement (enclosure, glove bag, transite etc.);

(2) Volume of materials abated;

(3) Types of air quality monitoring performed during abatement.

e. Waste Handling and Preparation

(1) Briefly describe the waste feed storage, handling and preparation aspects of the projects.

f. Health and Safety

(1) Briefly describe the Health and Safety aspects of the projects.

3. Demolition Performance

a. Briefly describe the demolition activities on the projects including but not limited to the following items:

(1) Number of buildings.

(2) Waste Classification procedures.

(3) Material types.

(4) Contaminant concentrations.

(5) Dust suppression methods.

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D. Qualification Scoring System Summary

1. Point System

	MAX. PTS	
(a) Project Organization (15 Pts)		
Organization Chart	5	____
Key Personnel	5	____
Resource Utilization Plan	5	____
Subtotal	15	____
(b) Experience (85 Pts)		
References	10	____
Construction Management	5	____
Remediation Performance with SWPPP controls	10	____
PCB Management	10	____
Asbestos Abatement	15	____
Waste Handling	10	____
Health and Safety	15	____

Demolition Experience	10 ____
Subtotal	85 ____
TOTAL	100 ____

* Inadequate response to any one of these items after clarification will be grounds for disqualification.

END OF SECTION

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SECTION 01046

CONTROL OF WORK

PART 1 GENERAL

1.01 EQUIPMENT

A. Furnish equipment which will be efficient, appropriate and large enough to secure a satisfactory quality of Work and a rate of progress which will insure the completion of the Work within the time stipulated in the Agreement. If at any time such equipment appears to the Owner's Representative to be inefficient, inappropriate or insufficient for securing the quality of Work required or for producing the rate of progress aforesaid, he may order the Contractor to increase the efficiency, change the type or increase the equipment and the Contractor shall conform to such order. Failure of the Owner's Representative to give such order shall in no way relieve the Contractor of the obligation to secure the quality of the Work and rate of progress required.

1.02 PRIVATE LAND

A. The Contractor shall not enter or occupy adjacent land, except by permission of the Owner or as indicated herein.

B. The Contractor shall work only in the areas of the building demolitions and roadway/parking areas/sidewalk removals, temporary facilities and decontamination facilities, as shown on the Drawings and as directed by the Owner's Representative.

C. Access to work areas shall be restricted to the access ways as shown on the Drawings and approved by the Owner and/or Owner's Representative.

1.03 MAINTENANCE OF TRAFFIC

A. Unless permission to close a street is received in writing from the proper authority, all demolition debris shall be placed so that vehicular and pedestrian traffic may be maintained at all times. If the Contractor's operations cause traffic hazards, he shall repair the road surface, provide temporary ways, erect wheel guards or fences, or take other measures for safety satisfactory to the Owner's Representative.

B. Detours around construction will be subject to the approval of the Owner's Representative. Where detours are permitted the Contractor shall provide all necessary barricades and signs as required to divert the flow of traffic. While traffic is detoured, the Contractor shall expedite demolition operations. Periods when traffic is being detoured will be strictly controlled.

C. In order to provide safe passage for pedestrians, a 40 foot wide paved walkway will be maintained from Bickers Street to Canada Drive along Goldman Street during all phases of the project.

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D. Police protection may be required for traffic while work is in progress. The Contractor shall be fully responsible for damage or injuries whether or not police protection has been provided.

E. The Contractor shall control traffic during transportation of wastes.

1.04 CARE AND PROTECTION OF PROPERTY

A. The Contractor shall be responsible for the preservation of all public and private property and shall use every precaution necessary to prevent damage to all public and private property. If any direct or indirect damage is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the Work on the part of the Contractor, such property shall be restored by the Contractor, at his expense, to condition better or equal to that existing before the damage was done, or he shall make good the damage in other manner acceptable to the Owner's Representative. Specifically included are asphalt paved areas used by the Contractor as work areas or access ways.

1.05 PROTECTION AND RELOCATION OF EXISTING STRUCTURES AND UTILITIES

A. The Contractor shall assume full responsibility for the protection of all buildings, structures, utilities, public or private including poles, signs, services to buildings, utilities in the street, gas pipes, water pipes, hydrants, sewers, drains and electric and telephone cables not included in the demolition and removal activities whether or not they are shown on the Drawings. The Contractor shall carefully support and protect all such structures and utilities from injury of any kind. Any damage resulting from the Contractor's operations shall be repaired by him at his expense.

B. The Contractor shall bear full responsibility for obtaining all locations of underground structures and utilities (including existing water services, drain lines and sewers). All costs or charges resulting from damage from the Contractor's operations thereto shall be paid by the Contractor.

C. In addition to hay bales, the Contractor shall provide additional measures, as necessary, to ensure the free flow of drainage and prevent ponding in all areas.

D. Contractor shall be responsible for rerouting all utilities to occupied areas not included under this project. The discontinuance time period shall be kept at a minimum. Additionally, all affected people must be notified a minimum of 48 hours prior to the interruption of services.

1.06 WATER FOR CONSTRUCTION PURPOSES

A. Public water supply is available at the Site. The Contractor may be allowed to use water without charge for puddling backfill, decontamination, dust control and other construction purposes.

B. The approval of the Owner or Owner's Representative shall be obtained before water is used. Waste of water by the Contractor shall be sufficient cause for withdrawing the privilege of unrestricted use. Hydrants shall only be operated upon approval by the Owner.

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1.07 COOPERATION WITHIN THIS CONTRACT

A. All firms or persons authorized to perform any Work under this Contract shall cooperate with Contractor and his subcontractors or trades and shall assist in incorporating the Work of other trades where necessary or required.

1.08 CLEANUP AND DISPOSAL OF EXCESS MATERIAL

A. During the course of the work, the Contractor shall keep the site of his operations in as clean and neat condition as possible. He shall dispose of all residue resulting from the demolition work and, at the conclusion of the work, he shall remove and haul away any surplus excavation, broken pavement, equipment, temporary structures and any other refuse remaining from the demolition operations and shall leave the entire site of the work in a neat and orderly condition.

B. In order to prevent environmental pollution arising from the construction activities related to the performance of this Contract, the Contractor and his subcontractors shall comply with all applicable Federal, State and Local laws and regulations concerning waste material disposal, as well as the specific requirements stated in this Section and elsewhere in the Specifications.

C. The Contractor is advised that the disposal of excess excavated material in wetlands, stream corridors and plains is strictly prohibited. Any violation of this restriction by the Contractor or any person employed by him, will be brought to the immediate attention of the responsible regulatory agencies, with a request that appropriate action be taken against the offending parties. The Contractor will be required to remove the fill at his own expense and restore the impacted area.

1.09 AIR MONITORING

A. The air at the site will be monitored during building demolition by the Owner's Representative. Air monitoring shall include monitoring for lead, total suspended particulates and asbestos during demolition of ACM Buildings. Results of the air monitoring will be posted daily by the Owner's Representative. The Owner will not be held responsible for the cost of additional dust control as directed by the Owner's Representative.

1.10 DUST CONTROL

A. The Contractor shall take measures to control dust at the site during the course of his operations as specified in Section 1562. If excessive dust is being released into the air due to the performance of the Work of this Contract at the established limits, the Owner's Representative will require the contractor to alter his operations and/or augment dust control measures. The Owner will not be held responsible for the cost of additional dust control as directed by the Owner's Representative. Operations shall cease when the Owner's Representative has determined that the Contractor has not taken suitable precautions against the release of the particulates into the air. Dust controls to be implemented shall be submitted with the Demolition Plan for review by the Owner's Representative.

B. All dust control shall be performed by the Contractor in accordance with applicable Federal, State and local regulations.

1.11 CLEANUP

A. During the course of the work, the Contractor shall keep the site of operations in as clean and neat a condition as possible. The Contractor shall dispose of all residue resulting from the Work and, at the conclusion of the Work shall ensure that the entire site is left in a neat and orderly condition.

B. Not less than bi-weekly, the Contractor shall sweep, clean the interior roads and roads used by trucks hauling debris from the site. Debris swept from any of these roadways shall be returned on-site for disposal as specified herein.

1.12 COORDINATION WITH SITE SECURITY

A. The Contractor shall coordinate all entrance to and exit from the work areas, and any other related matters. The Contractor shall be responsible for site security and the protection of his facilities and equipment 24 hours per day. The Contractor must provide 24 hour site security for the duration of the Contract.

B. Vehicular access to the site shall be restricted to authorized vehicles only.

C. Personal vehicles shall not be authorized to enter work areas. All personal vehicles entering the site shall park in the designated parking areas.

D. The Contractor shall be responsible for maintaining a log of security incidents.

E. The Contractor shall require all personnel and visitors having access to the site to sign-in and sign-out, and keep a record of all site access.

F. The Contractor shall be responsible for the implementation of his approved Health and Safety Plan for all persons entering the work areas.

1.13 COMMUNICATIONS

A. The Contractor shall provide telephone lines (1 dedicated facsimile, and 2 telephone lines) at the Owner's Representatives' field office, and telephone communication at the Contractor's field office.

B. Emergency numbers, including police, fire, ambulance, hospital, and all other necessities shall be prominently posted near the telephone.

C. Provide two-way radio communication. The Contractor shall have the ability to communicate between the field office and each active work location.

1.14 EMERGENCY AND FIRST AID REQUIREMENTS

A. The active work areas shall be provided with specially designed, Owner's Representative approved, emergency eye wash and shower units in accordance with ANSI standard Z358.1. These units may be portable.

B. At least one fully stocked industrial first aid kit, Model No. 8172 as manufactured by Johnson and Johnson Health Care Division, or approved equal, and a stretcher shall be provided.

C. The first aid kit location(s) shall be specially marked and provided with adequate water and other supplies necessary to cleanse and decontaminate burns, wounds, or lesions.

D. The Contractor shall provide a minimum of 20 pound ABC-rated fire extinguishes at all work locations. All equipment must be supplied with a fire extinguisher.

E. The Contractor shall develop contingency plans for the following potential emergencies: chemical exposure, personal injury, potential or actual fire or explosion, structural failure, and environmental accident (spill or release). In the event of any emergency associated with the site work, the Contractor shall without delay: take diligent action to remove or otherwise minimize the cause of the emergency; treat injured persons; alert the Owner's Representative; and institute whatever measures might be necessary to prevent any repetition of the conditions or actions leading to, or resulting in, the emergency. The Contractor shall notify St. Paul or Parkland Hospital, prior to commencement of demolition, that they will be used for emergency response. The Hospital telephone numbers are:

1. St Paul Hospital Telephone# - (214) 879-1000; and

2. Parkland Hospital Telephone# - (214) 590-8000

1.15 PERSONAL SAFETY AND RELATED EQUIPMENT

A. Provide all on-site personnel with appropriate personal safety equipment and protective clothing in accordance with the Contractor's Health and Safety Plan. Ensure that all safety equipment and protective clothing are kept clean and well maintained.

B. Programs for respiratory protection shall conform to OSHA 1910.134.

C. The Contractor shall provide barricades and warning measures around openings, pits, crawl spaces, asbestos demolition, excavations, and other areas to ensure personnel protection during the work.

1.16 PARKING

A. Provide for personnel parking at the site near the decontamination area or adjacent to the other temporary facilities.

B. Maintain the parking area and keep it clean. Following the completion of the Work, restore the parking area to its original, or better, condition.

1.17 TRAFFIC CONTROL

A. The Contractor shall be responsible for controlling vehicular traffic on the site in order to assure safe and efficient operations.

B. Unless approved by the Owner, the Contractor shall use only designated haul routes (Canada Dr.). The Contractor shall notify the Owner's Representative (24 hours in advance) of any changes in the haul route or access ways. The Contractor shall proceed only when he has received authorization from the Owner's Representative or Owner.

1.18 ROAD MAINTENANCE

A. All roadways and work areas shall be maintained in good condition throughout the progress of the Work and shall be accessible for truck traffic for transporting and disposing rubble.

B. All roadways and access ways shall be kept free of demolition material.

C. All roadways, driveways, parking areas, or sidewalks damaged or disturbed by the Contractor's operations on public or private property, shall be repaired, replaced, or restored by the Contractor as directed.

1.19 POSTED REGULATIONS

A. The Contractor shall develop, as required by his Health and Safety Plan, a series of posted regulations which shall be reviewed by the Owner. These regulations shall address the on-site protocol regarding use of personal protective equipment, personal hygiene, and provisions regarding smoking and eating.

B. These protocols shall be posted at various prominent locations on site and shall be reviewed daily with all Contractor's personnel and visitors.

1.20 LOGS AND REPORTS

A. The Contractor shall maintain logs and reports covering the performance of the Work. The format shall be developed by the Contractor to include, but not be limited to, daily reports, weekly reports, monthly summaries and a phase out report.

B. Weekly Reports shall include:

1. Summary sheet covering the range of work being done.

C. As a minimum daily account:

1. Equipment and personnel onsite.

2. Description of work performed.

3. Rubble quantities removed from site.

4. Updated container requirements for duration of project.

5. Delays, work stoppages.

6. Any out of scope of work performed, as directed by the Owner's Representative.

7. Violations of the Health and Safety Plan.

8. Daily job related injuries and illnesses.

9 Results of Laboratory Analysis performed by Contractor.

10. The Weekly Report shall be submitted to the Owner's Representative on the Monday following the work week.

11. The monthly summary shall be submitted to the Owner's Representative no later than the 7th day of the following month.

C. Employer Obligation (as required by Contractor's Health and Safety Plan). The Contractor should be aware that Federal laws such as OSHA (29 CFR 1910.120) may require that chemical exposure records and/or medical records be maintained by employer for a specified length of time after the termination of the exposure.

D. Daily Reports

1. The Contractor shall furnish to the Owner's Representative a daily report showing the previous day personnel air monitoring performed by the Contractor.

1.21 LABORATORY SERVICES (AS REQUIRED BY CONTRACTOR)

A. The Contractor shall provide and coordinate the services of a testing laboratory with Contract Laboratory Program (CLP) capabilities, approved by the Owner, to perform any services and analyses necessary for the completion of the work of this Contract.

B. Submit for review and approval, a detailed sampling and laboratory protocol procedure.

C. Qualifications of Laboratory

1. The laboratory shall meet the "Recommended Requirements for Independent Laboratory Qualifications," published by the American Council for Independent Laboratories, and be licensed in the State of Texas to perform all required analyses.

2. The laboratory shall use U.S. Environmental Protection Agency and ASTM-approved methods and procedures.

D. The Contractor shall permit the Owner or Owner's Representative to perform Quality Control Verification of sampling and analytical work. The Contractor shall cooperate with the Owner in obtaining samples for split analysis and shall permit the Owner access to the analytical laboratory.

E. The Contractor shall furnish the Owner's Representative a copy of all analytical results of tests performed during the course of the Work.

END OF SECTION

SECTION 01100

SPECIAL PROJECT PROCEDURES

PART 1 GENERAL

1.01 WORKMANSHIP, MATERIAL AND EQUIPMENT

A. All apparatus, mechanisms, equipment, machinery and manufactured articles for incorporation into the Work may be either new or used, except if specified to be new and unused; however, all such equipment shall be standard products of recognized reputable manufacturers. All equipment, systems and materials specified herein to be provided by the Contractor shall remain the property of the Contractor for the duration of the Project. The Owner will not purchase any equipment or materials under this Contract.

B. All workmanship and materials shall be of the highest quality. The equipment shall be the product of manufacturers who are experienced and skilled in the field with an established record of research and development.

1.02 OBSTRUCTIONS

A. It is the responsibility of the Contractor to ensure that all utility or other poles which are not to be removed during demolition activities and the stability of which may be endangered by the proximity of demolition, are temporarily stayed in position while work proceeds in the vicinity of the pole and that the utility or other companies concerned be given reasonable advance notice of any such demolition activities by the Contractor.

1.03 PROVISIONS FOR CONTROL OF EROSION

A. The Contractor shall place and maintain temporary silt control measures in the downgradient locations in the work area to minimize sediment transport. Erosion control measures shall be applied before any demolition work or site work is started.

B. Sufficient precautions shall be taken during demolition to minimize the run-off of polluting substances such as silt, clay, fuel, oils, bitumens, calcium chloride, and other polluting materials harmful to humans, fish, or other life. Control measures must be adequate to assure that turbidity in the receiving water will not be increased more than 10 standard turbidity units (s.t.u.), or as otherwise required by the State or other controlling body, in waters used for public water supply or fish unless limits have been established for the particular water. In surface water used for other purposes, the turbidity must not exceed 25 s.t.u. unless otherwise permitted. Special precautions shall be taken in the use of equipment to prevent operations which promote erosion.

C. The Contractor shall maintain complete control of all silts and sediments generated from the decontamination processes at all times. The rinsate shall be filtered and discharged to the City of Dallas POTW or storm drain system provided that the contractor obtains the required discharge permits; or collected onsite for future disposal.

1.04 SEVERE INCLEMENT WEATHER

A. Within 10 days of the date of Notice to Proceed, the Contractor shall submit to the Owner's Representative a Severe Inclement Weather Plan. The plan shall outline the necessary measures which the Contractor proposes to perform at no additional cost to the Owner in case of a severe storm warning.

B. In the event of inclement weather the Contractor will, and will cause Subcontractors to protect carefully the Work and materials against damage or injury from the weather. If, in the opinion of Owner's Representative any portion of work or materials shall have been damaged or injured by reason of failure on the part of the Contractor or any subcontractors to so protect the Work, such Work and materials shall be removed and replaced at the expense of the Contractor.

1.05 POWER AND WATER SUPPLY

A. The Contractor shall furnish and pay for all electrical or other power required for construction, testing, and operation during all activities.

B. The Contractor shall be responsible for providing an onsite potable water supply for testing and personnel use. A source of water will be provided by the Owner for construction water.

1.06 PUBLIC NUISANCE

A. All work shall be performed in accordance with applicable Federal, State and local regulations and ordinances for noise control.

B. The contractor shall not create a public nuisance including but not limited to encroachment on adjacent lands not included in the work, flooding of adjacent lands, or excessive noise.

C. Sound levels measured by the Owner's Representative shall not exceed 45 dBA after 8 PM or 55 dBA 8 AM to 8 PM. This sound level shall be measured outside the nearest exterior wall of the nearest residence. Levels at the equipment shall not exceed 85 dBA at any time. Sound levels in excess of these values are sufficient cause to have the work halted until equipment can be quieted to these levels. Work stoppage by the Owner's Representative or Owner for excessive noise shall not relieve the Contractor of the other portions of this specification including, but not limited to, completion dates and bid amounts.

D. No extra charge may be made for time lost due to work stoppage resulting from the creation of a public nuisance.

1.07 SUSPENSION OF WORK DUE TO WEATHER

A. During inclement weather, all work which might be damaged or rendered inferior by such weather conditions shall be suspended. The orders and decisions of the Owner's Representative as to suspensions shall be final and binding. During

suspension of the Work for any cause, the Work shall be suitably covered and protected so as to preserve it from injury by the weather or otherwise; and, if the Owner's Representative shall so direct, the rubbish and surplus materials shall be removed.

1.08 INTERRUPTION OF UTILITIES

A. The Contractor shall, prior to interrupting a utility service (water, sewer, gas or power) for the purpose of removal during demolition, or for any other purposes, contact the Owner and make arrangements for the interruption which will be satisfactory to the Owner.

1.09 RESPONSIBILITY AND GENERAL OBLIGATIONS OF THE CONTRACTOR

A. The Contractor shall be responsible for the entire Work indicated by the Drawings, Specifications and Contract from the date of the starting of the Work until it is accepted by the Owner. The Contractor shall keep the Contract under his own control and it shall be his responsibility to see that the Work is properly supervised and carried on faithfully and efficiently. The Contractor shall supervise the work personally or shall have a competent, superintendent or representative, who shall be on the site of the project at all times and who shall be authorized by the Contractor to direct the performance of the work and make arrangements for all necessary materials, equipment and labor without delay.

B. Replacements or repairs necessitated because of defective materials or workmanship, or due to action of the elements or other natural causes, including fire and flood, shall be done anew in accordance with the Contract and Specifications at the expense of the contractor.

C. General obligations of the Contractor shall be set forth in the Contract Documents. Unless special payment is specifically provided in the payment paragraphs of the specifications, all incidental work and expense in connection with the completion of work under the Contract will be considered a subsidiary obligation of the Contractor, and all such costs shall be included in the appropriate items in the Bid Form in connection with which the costs are incurred.

1.10 PERMITS

A. Upon Notice to Proceed, the contractor shall immediately apply for all applicable permits to do the Work from the appropriate governmental agency or agencies. No work shall commence until applicable permits have been obtained and copies delivered to the Owner's Representative. The costs for obtaining all permits shall be borne by the Contractor.

B. Applicable permitting requirements for the Contractor may include but not limited to the following:

1. Local building permits from the City of Dallas Permitting Department.

2. Certificates of utility severances.

3. Disposal permits for hauling and disposal of uncontaminated surplus and/or unsuitable material and debris generated during construction.

4. Any air emission permits that may be applicable.

5. Any highway permits that may be applicable.

6. Any wetlands destruction or revegetation permits that may be applicable.

7. Asbestos abatement permits.

8. Washwater/stormwater discharge permits.

1.11 SITE INVESTIGATION

A. The Contractor shall satisfy himself as to the conditions existing within the project area, the type of equipment required to perform the Work, the character, quality and quantity of the materials to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, as well as from information presented in the Drawings, Specifications, and reports available from the Owner. Any failure of the Contractor to acquaint himself with the available information will not relieve him from the responsibility for estimating properly the difficulty or cost of successfully performing the work. The Owner assumes no responsibility for any conclusions or interpretation made by the Contractor on the basis of the information made available by the Owner.

1.12 WORKING HOURS

A. All Work shall be performed during daylight hours, and in accordance with local ordinances to reduce possible safety hazards. Work will be performed at a maximum of six days per week, with Sundays off, unless otherwise approved by the Owner or Owner's Representative. If the Contractor proposes to work during other hours or at night, he shall first discuss the matter thoroughly with the Owner's Representative and present a plan of operations for review by the Owner's Representative. The operations plan shall fully describe the method of lighting the operations area. In any event, all working hours shall give full consideration to the proximity of others and the need to control noise and lighting levels at all times.

1.13 WORK AREAS

A. The Work Areas have been shown on the Drawings by the Owner's Representative. The Contractor shall clearly layout and designate the following areas in the field prior to work, and shall limit equipment, operations and personnel in the zones.

1. Exclusion Zone(s) (Hazardous Work or Hot Zone). This shall include, at a minimum, all work within 50 feet of any ACM Building being demolished. The Exclusion Zones shall be clearly delineated and shall be secured against active or passive spread of contamination to Support Zones. The level of personnel protective equipment required in these areas shall be in accordance with the Contractor's Health and Safety Plan as determined by the CIH and HSO, after monitoring, onsite inspection, and review of available site data.

2. Contamination Reduction Zone (Decontamination Area). This Zone shall occur at the interface of the Exclusion and Support Zones and will provide for the transfer of construction materials from clean to site dedicated equipment, the decontamination of waste transport vehicles, personnel, and clothing prior to entering the Support Zone and for the physical segregation of the Support and Exclusion Zones.

3. Clean Area. This Area is the remainder of the Site and is defined as being an area outside the areas of known ACM. The function of the Clean Area includes:

   a. An entry area for personnel, material and equipment to the Exclusion Zone;

   b. An exit area for decontaminated vehicles, personnel, materials, and equipment from the Exclusion Zone of site operations;

   c. Location for support facilities;

   d. A storage area for clean work equipment.

   e. Locations of the remaining work areas.

1.14 TEMPORARY STORAGE (RUBBLE STOCKPILING)

A. The Contractor may store equipment and rubble on a temporary basis, upon approval of the Owner's Representative. The storage of ACM is prohibited at all times. All demolished buildings containing ACM must be immediately loaded, transported and disposed of on the same day.

END OF SECTION

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SECTION 01101

SAFETY, HEALTH AND EMERGENCY RESPONSE REQUIREMENTS

PART 1 GENERAL

1.01 SCOPE OF WORK

A. This Section describes the responsibilities of the Contractor for safety, health, and emergency response. Work performed under this Agreement shall not result in:

1. Injuries to employees or other persons.

2. Employee exposures to health hazards above the occupational limits established by OSHA, ACGIH, and/or the TNRCC.

3. Exposure of area residents to air contaminants above the levels established for general public exposure by USEPA, TNRCC, the State of Texas and the City of Dallas.

4. Increases in the levels of contaminants in soil, water, or sediment near the site.

5. Violations of OSHA, EPA, TNRCC, State and City regulations.

B. Any disregard of health and safety requirements may be deemed just and sufficient cause for termination of the Contract without compromise or prejudice to the rights of the Contractor.

C. The Contractor shall maintain a comprehensive health and safety program that addresses lines of authority and responsibility for health and safety procedures including but not limited to: medical monitoring, training, equipment programs, and recordkeeping. Site-specific requirements are discussed elsewhere in this Section.

1.02 BACKGROUND

A. Any information that the Owner has on chemical contamination of the soils is described in the attached Demolition and Removal Action Workplan.

1.03 SUBMITTALS

A. Submit the following documentation with the bid package:

1. Name of Contractor's Health and Safety Officer.

2. A statement reflecting the number of Contractor's employees who have completed the training and medical requirements required for hazardous waste and asbestos.

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B. Submit the following information at or prior to the Pre-Work Conference.

1. A Safety, Health and Emergency Response Plan, which addresses the issues described in Article 1.09 of this Section.

2. Name and resume of health and safety professional.

3. Certification of health and safety officer's authority.

4. Name and address of Contractor's consulting physician.

5. Name and resume of health and safety professional.

6. Personal protection (including respiratory) programs.

1.04 REGULATORY REQUIREMENTS

A. Contractor's health and safety practices shall follow the standards and guidelines established in the publications listed below. These standards are incorporated in this Section by reference:

1. Safety and Health Standards 29 CFR 1910 (General Industry), US Department of Labor, Occupational Safety and Health Administration (OSHA). Hereafter, referred as "29 CFR 1910."

2. OSHA 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response, U.S. Dept. of Labor, OSHA.

3. OSHA Safety and Health Standards 29 CFR 1926 (Construction Industry), US Department of Labor, OSHA

4. Standard Operating Safety Guides, US Environmental Protection Agency (EPA), Office of Emergency and Remedial Response PB92-983414.

5. Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, US Department of Health and Human Services, Public Health Service, Centers for Disease Control, National Institute for Occupational Safety and Health (NIOSH).

6. Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use, NRC, 1976 (if applicable).

7. AHERA Accredidation: Submit copies of certificates from an EPA-approved AHERA Abatement Worker course for each worker as evidence that each Asbestos Abatement worker is accredited as required by AHERA Regulation 40 CFR 763, Appendix C, Subpart E, April 30, 1987.

8. Licensing: Prior to the start of any work, submit evidence of a copy of a Texas Department of Health asbestos abatement worker license for each worker who will be working at the project site.

9. Provide written notification as required by USEPA National Emissions Standards for Hazardous Air Pollutants (NESHAP) Asbestos Regulations (40 CFR 61, Section 61.145(b)(4) Subpart M no fewer than ten (10) working days prior to beginning any work on asbestos-containing materials to:

Regional Asbestos NESHAP Coordinator
U.S. Environmental Protection Agency
1445 Ross Avenue
Dallas, Texas 75202

Texas Department of Health
Division of Occupational Health
Asbestos Programs Branch
1100 W. 49th Street
Austin, Texas 78756

NESHAP Coordinator
City of Dallas
Air Pollution Control Division
320 E. Jefferson Boulevard
Dallas, Texas 75203

B. This Section implements and amplifies procedures and requirements of the above referenced regulations and guidelines that must be met at all times. These publications define terms and establish procedures discussed in this Section, which incorporates them by reference. Where conflicts arise between the requirements of this Section and the above-listed standards and guidelines, the most restrictive requirement shall apply.

1.05 CONTRACTOR'S PERSONNEL

A. Contractor shall assign persons to fill each of the following roles. An individual can fill as many roles for which he or she is qualified. The Contractor shall submit with the SHERP, an organizational chart showing the responsibility of health and safety personnel.

B. Health and Safety Officer - Contractor shall designate an employee or company principal as its health and safety officer (HSO). This HSO must have the authority to command sufficient resources to safely perform the Work. Contractor shall identify its HSO in the site safety and health plan. Owner and Owner's Representative will direct health and safety correspondence to this HSO.

C. Health and Safety Professional - Contractor shall designate a health and safety professional to take responsibility for evaluating hazards of the site and controls that will appear in the site safety plan. This professional shall be certified as either a certified industrial hygienist or a certified safety professional. This Section calls this person a "CIH".

D. Site Health and Safety Coordinator

1. Contractor shall designate a Site Health and Safety Coordinator (SHSC) for this project. Day-to-day industrial hygiene support, including air monitoring, training, site safety inspections, shall be provided by the SHSC. The SHSC

shall have the authority to stop on-site operations whenever conditions threaten the health or safety of employees. The SHSC shall remain on-site during all project operations.

2. The SHSC shall report directly to the HSO or the CIH. The SHSC shall have; sound working knowledge of occupational safety and health regulations, experience on the type of project described in these Specifications, and training in air monitoring practices and techniques.

E. On-site Operations Manager - The on-site activity of this project shall be under the control of an on-site operations manager. This manager shall have demonstrable experience with hazardous materials remediation and asbestos abatement activities.

F. On-site Workers - All on-site Contractor personnel shall possess the following credentials:

1. Have completed a forty hour health and safety training course or refresher training course within the last year.

2. Have completed a medical monitoring exam within the last year.

3. Have passed a fit test for any respirator they may wear on the site.

4. AHERA Accredidation: Submit copies of certificates from an EPA-approved AHERA Abatement Worker course for each worker as evidence that each Asbestos Abatement worker is accredited as required by AHERA Regulation 40 CFR 763, Appendix C, Subpart E, April 30, 1987.

5. Licensing: Prior to the start of any work, submit evidence of a copy of a Texas Department of Health asbestos abatement worker license for each worker who will be working at the project site.

1.06 MEDICAL SURVEILLANCE

A. The Contractor shall utilize the services of a licensed physician, board-certified or board-eligible in occupational or internal medicine, to provide a medical surveillance program as required by OSHA regulations. The name of this physician shall be provided to the Owner's Representative along with a certified letter stating he is aware of the hazards to be encountered by on-site personnel during the project.

B. The Contractor shall obtain the occupational physician's written medical opinion as to whether each employee has any detected medical conditions which would place him or her at increased risk of health impairment from work on this project. The occupational physician shall certify whether or not the employee is medically fit to utilize the respiratory protective devices required for project operations. No employee shall be permitted on-site until the Contractor has submitted medical certificates to the Owner's Representative. These certificates shall have been completed and signed within a year of the beginning of the project. If an employee's certification expires during the course of the project, copies of the updated training records must be supplied to the Owner's Representative for approval.

C. In accordance with 29 CFR 1910.20, Contractor shall maintain all medical surveillance records for thirty years past employment and shall make these records available to the Owner or regulatory agencies, as required.

1.07 TRAINING

A. All employees exposed to hazardous substances, health hazards, or safety hazards shall complete the employee training requirements listed below. Employees shall not participate in field activities until they have been trained to a level required by their job function and responsibility.

B. The Contractor shall submit a statement indicating that personnel who will enter the work zone understand they are working on a regulated site, and are trained and qualified in compliance with 29 CFR 1910.120; 29 CFR 1926; and 40 CFR 763.

C. Contractor shall maintain, at the work site, documentation that shows that each on-site employee or subcontractor has successfully completed the required health and safety training and AHERA courses.

D. At least one person who has been trained and certified in first aid and CPR by the American Red Cross, or an equivalent organization, shall be present on-site during all project operations.

E. Contractor shall provide a site-specific training session for Contractor personnel scheduled to work on-site. This training shall consist of an initial health and safety briefing on the following information:

1. Names of personnel and alternates responsible for site safety and health.
2. Injury, illness, and other hazards present on the site.
3. Safe use of engineering controls and equipment on site.
4. Work practices by which the employee can minimize risks from hazards.
5. Selection, use, care, and maintenance of PPE.
6. Site control procedures, including log-in and log-out.
7. Site decontamination procedures.
8. Standard operating safety procedures.
9. Site emergency response contingency plan.
10. Confined spaces that have been identified on site.
11. Procedures needed for any confined space entries that may be part of the project.

F. Contractor shall develop a training sequence to inform visitors to the site of the hazards associated with the site; to explain emergency procedures; to train them in the use of protective gear required during the visit; and to verify they have received, prior to the site visit, the required preliminary training and medical surveillance examinations. The CIH may delegate the day-to-day implementation of this policy to the SHSC.

1.08 ACCIDENT OR INCIDENT REPORTS

A. If an accident, an explosion or fire, or a release of toxic materials occurs during the course of the project, the Owner's Representative shall be notified immediately and receive a written notification within 24 hours. Within 2 working days of any reportable accident, the Contractor shall complete and submit to the Owner's Representative, an accident report addressing the following items:

1. Name, organization, telephone number, and location of the Contractor.

2. Name and title of the person(s) reporting.

3. Date and time of the accident/incident.

4. Location of the accident/incident, i.e., site location, facility name.

5. Brief summary of the accident/incident giving pertinent details including type of operation ongoing at the time of the accident/incident.

6. Cause of the accident/incident, if known.

7. Casualties (fatalities, disabling injuries).

8. Details of any existing chemical hazard or contamination.

9. Estimated property damage, if applicable.

10. Nature of damage, effect on contract schedule.

11. Action taken by Contractor to ensure safety and security.

12. Other damage or injuries sustained, public or private.

1.09 SAFETY, HEALTH AND EMERGENCY RESPONSE PLAN

A. Contractor shall prepare a Safety Health and Emergency Response Plan (SHERP) that addresses each concern mentioned in this Section and other concerns the Owner's Representative and Contractor deem necessary. The SHERP shall be site-specific and shall include measures to be taken by Contractor and subcontractor(s) to control physical and chemical hazards associated with site remediation. Contractor's standard policies may constitute much of this SHERP. Contractor's HSO shall sign and date the SHERP.

B. The SHERP shall, at a minimum, address the following elements: staff organization, responsibilities, and authorities; site description; hazard analysis for each project task and operation; general and site-specific training; personal protective equipment; medical

surveillance; personal and environmental exposure monitoring; standard operating safety procedures; engineering controls and work practices; communications; site control measures; personnel hygiene and decontamination; equipment decontamination; emergency equipment and first aid; emergency response and contingency procedures; and logs, reports and recordkeeping.

C. An Accident Prevention Plan (APP) shall appear in the SHERP. This APP shall address methods for avoiding the physical hazards (e.g. open manholes). Contractor and subcontractor(s) shall follow the approved Accident Prevention Plan throughout construction. The Accident Prevention Plan shall address, at a minimum, the following items:

1. Safety Meetings
2. Fire Prevention and Protection
3. Walking and Working Surfaces
4. Site Housekeeping
5. Mechanical Equipment Inspection
6. Sanitation
7. Daily Safety Inspections
8. Accident Reporting

D. The Contractor shall submit the SHERP to the Owner's Representative and Owner at or prior to the Pre-Work Conference. The Owner's Representative and Owner will review the SHERP and return them to Contractor with comments. The Contractor shall incorporate Owner's comments and re-submit the SHERP. This review cycle shall continue until the Owner gives notice to proceed with the project. At that time, Contractor shall indicate its commitment to following the SHERP by an affidavit, signed by the company health and safety officer.

E. Contractors that seek to modify any portion or provision of the SHERP, shall request a modification from the Owner's Representative in writing. The requested modification will not be implemented until authorized in writing by the Owner's Representative.

F. Contractor shall quickly notify the Owner's Representative and Owner, both verbally and in writing, of any unforeseen hazard, safety related factor, or condition they observe during the work at this site. In the interim, Contractor shall take prudent action to establish and maintain safe working conditions and to safeguard employees, the public, and the environment in accordance with the SHERP.

G. Should Owner or Owner's Representative require modification of any portion or provision of the SHERP, notification will be given to the Contractor in writing of such modifications.

1.10 SITE - SPECIFIC EQUIPMENT PRACTICES

A. Operations under this Contract will require work exposure to potentially hazardous materials (asbestos). The Contractor shall, therefore, ensure that all of its onsite personnel will wear all necessary personal protective equipment (PPE). All personnel entering the work area where asbestos is present shall don, at a minimum, Level D PPE with PAPRs.

B. Contractor shall supply all protective clothing and equipment necessary for its personnel and maintain it in accordance with the manufacturer's specifications. All equipment shall carry applicable MSHA/NIOSH approvals. Specific equipment requirements must be stated in the Contractor's SHERP. The Owner's Representative may reject the use of the equipment if, in his or her opinion, it provides less protection than that specified in the SHERP.

C. The Contractor shall maintain a sufficient supply of PPE for two Owner employees per day for the duration of the project. Owner will provide respiratory protection and safety shoes for its employees.

D. Contractor's personnel shall not enter an area or perform a task for which a respirator might be required unless they have passed a fit test with the make and model of respirator in use.

E. Prescription eyeglasses worn on site must meet ANSI standard Z87.1. Contractor shall provide prescription lens inserts for employees who need to wear full face respirators. Personnel shall wear the protective equipment specified in the SHERP for each on-site task.

F. All personal protective equipment worn on-site during ACM demolition activities will be decontaminated or properly disposed of at the end of the work day.

G. The initial minimum level of protection for each major site activity shall be described in the SHERP. The Contractor shall conform to the initial level of protection unless an upgrade or downgrade is warranted by air monitoring data and an evaluation of work practices/controls and/or when regulatory required.

H. The Contractor shall downgrade his level of protection only when the SHS makes the change based on site activity, air monitoring of contaminant levels, or work place practices as specified in the SHERP and when the CIH approves the change with the knowledge of the Owner's Representative.

I. Respiratory protective equipment shall carry National Institute of Occupational Safety and Health approval for the contaminants of concern. Contractor shall not switch respirators or facepieces between employees without cleaning between uses. Canisters and filters shall be changed daily.

J. The SHERP shall include a written respirator policy which meets 29 CFR 1910.134 and establishes procedures to assure daily cleaning and maintenance of respirators. Breathing air shall be Compressed Gas Association Grade D or better. Cartridges and filters shall be changed at least daily. Respirators and filter cartridges shall be stored in a place and manner that they cannot become contaminated.

K. All personnel who may wear a respirator shall be qualitatively fit-tested with irritant smoke, isoamyl acetate, or equivalent methods according to OSHA Standard 29 CFR 1926.58, Appendix C at least semiannually. Quantitative fit-testing exceeds this requirement. Employees shall perform negative pressure fit-checks in accordance with manufacturer's recommendations on air purifying respirators each time they are put on. No facial hair which interferes with a satisfactory fit or a respiratory mask-to-face-seal is allowed on personnel required to wear respiratory protective equipment. A "two-day" growth of beard is considered to interfere with the fit of the respirator.

1.11 STANDARD SAFETY OPERATING PROCEDURES

A. The SHERP shall contain a section outlining Standard Safety Operating Procedures to be implemented for this project. Contractor personnel shall observe the following contamination control rules while on-site:

1. Eating, drinking, smoking, chewing gum or tobacco, and other practices that increase the probability of hand-to-mouth transfer and ingestion of material is prohibited in any area designated contaminated.

2. Hands and face shall be thoroughly washed upon leaving the work area and before eating, drinking, urinating, or other activities.

3. The entire body shall be thoroughly washed at the end of each shift when demolition activities are performed on an ACM building.

4. Medicine and alcohol can increase the effects of exposure to toxic chemicals. Therefore:

   a. Personnel using prescription drugs shall inform the doctor who prescribed them of their potential contact with toxic materials;

   b. Personnel who take over-the-counter drugs within a day before work on a site must inform the SHSC of the warnings listed on the drug's container (the part of the label that says, for example, "Do not take this medication if you are operating a motor vehicle");

   c. Alcoholic beverage intake will be prohibited during project operations. Personnel under the influence of alcohol or recreational or illegal drugs will not be allowed on site;

   d. If suspected alcoholic beverages and/or recreational or illegal drugs are being used, random testing may be performed by the owner.

B. The SHERP shall contain information regarding worker breaks, including but not necessarily limited to the following: decon procedures prior to break and designation of specific break areas.

1.12 GENERAL HEALTH AND SAFETY CONCERNS

A. Each work day, Contractor's SHSC shall inspect the site and the work practices followed on the site to determine whether the SHERP is being followed.

B. When work area temperatures exceed 80 degrees F (75 degrees F when workers wear cotton coveralls), Contractor shall take steps to control heat stress among its personnel. When temperatures are lower then 32 degrees F, Contractor shall take steps to control cold stress among its personnel. Such steps should include; dry layered clothing, break shelters, and provision of heaters.

C. Electrical installations and appliances used by Contractor shall meet applicable 1994 National Electrical Code specifications. All electrical devices utilized by the Contractor or his subcontractors on this project shall be grounded and equipped with and utilize ground fault circuit interrupter (GFCI) protected outlets or extension cord sets. Electrical devices used in confined spaces that may contain flammable vapors shall be explosion - proof.

D. No Contractor employee may enter a confined space unless the procedures below are followed.

1. Pre-entry permits are prepared and reviewed.

2. Appropriate safety equipment is selected and provided.

3. Hazardous conditions are monitored per Health & Safety Plan.

4. Hazardous gases are ventilated from the space.

5. Rescue procedures and equipment are instituted.

1.13 ENVIRONMENTAL REGULATIONS

A. The Contractor shall establish a system to control access to hazardous work areas by unauthorized personnel.

B. The Contractor shall conduct operations and maintain site work areas so as to minimize the creation and dispersion of contaminants (dusts and sediments).

C. Wastes, including wash water and storm water run-off, shall be disposed as required by State and Federal regulations or as otherwise permitted.

1.14 EXPOSURE MONITORING

A. Exposure monitoring shall be addressed in the Safety, Health, and Emergency Response Plan. The exposure monitoring plan shall be designed to:

1. Detect and quantify the contaminants and physical agents that may be a concern during these activities.

2. Provide enough information to allow the Site Health and Safety Coordinator to recognize conditions that require changes in work practices or level of protection.

B. Contractor shall provide all required personnel monitoring and exposure monitoring and sampling equipment analysis. This equipment shall be operated only by personnel who are trained in its use. Contractor shall maintain and calibrate the equipment according to manufacturer's instructions.

C. Contractor shall record exposure measurements and provide copies to the Owner and Owner's Representative on a weekly basis.

D. A dust monitoring program will be developed and implemented by the Owner's Representative: Readings shall be collected by the Owner's Representative at least twice a day during active work in work zones near suspected sources of dust emission.

1.15 EMERGENCY PREPAREDNESS

A. In the event of a fire or sudden release of contaminants, Contractor personnel shall quickly evacuate the facility. Contractor's emergency response and contingency plan must present procedures Contractor will follow in the case of an injury or in case Contractor observes an emergency unrelated to the field work.

B. The emergency response and contingency plan (part of the SHERP) for on-site and off-site emergencies, as specified in OSHA Regulation 29 CFR 1910.120(1), shall address, at a minimum:

1. Pre-emergency planning

2. Personnel roles, lines of authority, training, and communication.

3. Emergency contact names and telephone numbers:

   - Medical treatment facility and physician
   - Ambulance service's telephone number
   - Fire department's telephone number
   - Police department's telephone number
   - USEPA and state spill control phone number
   - Owner's Representative telephone number
   - Owner's telephone number

4. Emergency recognition and prevention.

5. Emergency altering and response procedures.

6. Evacuation routes and procedures.

7. Safe distances and places of refuge.

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8. Specific procedures for handling personnel with excessive exposure to contaminated soils or materials.

9. Personal protective equipment and emergency equipment.

10. Emergency personnel and equipment decontamination.

11. Emergency medical treatment and first aid.

12. Directions to a nearby medical treatment facility.

13. Site security and control for incidents.

14. Procedures for dealing with fires, explosions, and spills.

15. Critique of response and follow-up.

C. In the event of any emergency associated with this project, Contractor shall without delay alert the Owner's Representative and institute whatever measures which might necessary to prevent any repetition of the conditions or actions leading to, or resulting in, the emergency.

D. In the event of an accident resulting in a spill on public roadways or travelways, the Contractor shall employ an independent emergency response company approved by the Owner's Representative. The Contractor shall be liable for all costs associated with the cleanup of spills. The Owner's Representative will direct the emergency response company in the event of a spill.

E. In the event of an injury or illness among the site personnel, the certified first aid practitioner on-site will take control. The injured or ill person will be transferred to the medical facility designated in the SHERP.

F. When an evacuation is necessary, all field team members will go to the reassembly point for the project. The SHERP shall identify the reassembly points for contractor personnel in the event of an evacuation.

G. The SHERP shall identify the method by which Contractor personnel will communicate in the event of an emergency. Communications with the office trailer, if it is outside vocal range, will be by radio. Communications between Contractor and other organizations will be over the telephone. A list of emergency telephone numbers must appear in the SHERP.

H. Contractor shall provide appropriate emergency equipment, including an industrial-type first aid kit that is approved by its consulting physician for injuries and illnesses which may occur on site. A 20-pound ABC-rated fire extinguisher shall be maintained in each work area of the site. Emergency retrieval equipment shall be provided for each confined space entry.

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I. All site support vehicles shall be equipped with route maps providing directions to the medical treatment facility. All drivers of the support vehicles shall become familiar with the emergency route and the travel time required at the beginning of the project operations. One person certified in first aid and CPR shall be present on-site whenever active work operations occur.

1.16 LOGS, REPORTS, AND RECORDKEEPING

A. The Contractor shall maintain daily logs and reports covering the implementation of the HMH&S Plan. The format shall be developed by the Contractor to include daily logs, weekly reports, monthly summaries and a phase out report. Contractor shall provide the Owner's Representative with copies of all daily logs and reports by the following work day.

B. Daily Safety Logs shall include, at a minimum, the following:

1. Date;

2. Area (site specific) checked;

3. Employees in a particular area;

4. Site visitors, name, affiliation, purpose of site visit;

5. Equipment being utilized by employees;

6. Protective clothing being worn by employees;

7. Protective devices being used by:

   a. Contractor's Personnel

   b. Visitors

   c. Designated State and Federal Representatives

8. Personnel Air Monitoring Data including description of area being monitored, equipment used, readings taken, copies of all laboratory data; and

9. Site Safety and Health Officer signature and date.

END OF SECTION

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SECTION 01200

PROJECT MEETINGS

PART 1 GENERAL

1.01 REQUIREMENTS

A. The Owner's Representative will schedule and administer a preconstruction meeting, periodic progress meetings, and specially called meetings throughout the progress of the work and will be responsible for the following:

1. Prepare agenda for meetings.

2. Make physical arrangements for meetings.

3. Preside at meetings.

4. Tape record meetings.

5. Prepare and distribute meeting minutes.

B. Representatives of Contractor and subcontractors attending meetings shall be qualified and authorized to act on behalf of the entity each represents.

C. The Contractor shall attend meetings to ascertain that work is performed consistent with Contract Documents and construction schedules.

1.02 RELATED REQUIREMENTS

A. Section 01300: Submittals

B. Section 01311: Construction Schedules

C. Section 01380: Construction Photographs

1.03 PRECONSTRUCTION MEETING

A. The Contractor shall attend a scheduled preconstruction meeting.

B. The location of the preconstruction meeting shall be at a site convenient for all parties, as designated by the Owner's Representative.

C. Parties responsible for attending the preconstruction meeting are:

1. Owner and Owner's Representative.

2. Contractor's Superintendent, SSHO, and others as appropriate or requested by Owner's Representative.

3. Major subcontractors.

4. Utility representatives as needed.

5. Asbestos Abatement Contractor and Air Monitoring Representative.

6. EPA's designated representative.

7. Disposal facility representatives.

8. Others as appropriate.

D. Suggested Agenda:

1. Construction schedule including:

   a. Critical work sequencing.

   b. Major equipment deliveries and priorities.

2. Identification of major subcontractors.

3. Project Coordination.

   a. Designation of responsible personnel.

   b. Authority of personnel.

4. Procedures and processing of:

   a. Field decisions.

   b. Proposal requests.

   c. Submittals.

   d. Change Orders.

   e. Applications for Payment.

5. Adequacy of distribution of Contract Documents.

6. Procedures for maintaining Record Documents.

7. Use of premises:

   a. Office, work and storage areas.

   b. Owner's requirements.

8. Construction facilities, controls and construction aids.

9. Temporary utilities.

10. Housekeeping procedures.

11. Check of required Bond and Insurance certifications.

12. Liquidated damages.

13. Request for a weekly job meeting for all involved.

14. Equal Opportunity Requirements.

15. Laboratory testing requirements and results.

16. Inventory of material stored on site provisions.

17. Verification of cleanup and change orders for additional work.

18. Safety, Health and Emergency Response Plan.

1.04 PROGRESS MEETINGS

A. Schedule regular progress meetings. The progress meetings will be held every 30 days or less with the first meeting 30 days after the pre-construction meeting or 30 days or less after the date of Notice to Proceed.

B. Hold specially called meetings as required by progress of the work.

C. Location of the meetings: At a project site location to be determined by the Owner's Representative.

D. Attendance:

1. Owner and Owner's Representative.

2. Contractor's Superintendent and Contractor's Health and Safety Representative.

3. Subcontractors as appropriate to the agenda.

4. Others as appropriate or requested by Owner's Representative.

E. Suggested Agenda:

1. Review, approval of minutes of previous meeting.

2. Review of work progress since previous meeting.

3. Field observations, problems, conflicts.

4. Problems which impede construction schedule.

5. Corrective measures and procedures to regain projected schedule.

6. Revisions to construction schedule.

7. Progress, schedule, during succeeding work period.

8. Coordination of schedules.

9. Review submittal schedules; expedite as required.

10. Maintenance of quality standards.

11. Pending changes and substitutions.

12. Review proposed changes for effect on demolition schedule and completion date.

13. Matters related to the Safety, Health and Emergency Response Plan.

14. Quality assurance procedures.

15. Other business.

F. The Contractor shall attend progress meetings and shall be prepared to discuss all agenda items..

G. Submittals required at or before each progress meeting:

1. Demolition Schedule Monthly Status Report.

2. Demolition photos.

3. Up to date submittals in accordance with Section 01300.

END OF SECTION

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SECTION 01300

SUBMITTALS

PART 1 GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

A. This Section specifies the general methods and requirements of submission for the following items: Safety, Health and Emergency Response Plan, Work Schedule, Demolition Plan, Temporary Facility Plan, Transportation and Disposal Plan, Shop Drawings and Site Security Plan, and Electrical Distribution Plan. Detailed submittal requirements are specified in the respective specification Sections.

B. When procedural plans are required, such plans shall include at a minimum:

1. A complete description of the methods and procedures to be employed.

2. A summary of the major pieces of equipment to be used, by manufacturer and model.

3. Manpower assignments.

4. Schedule of performance.

5. Health and safety implications for managing both regulated and non-regulated ACM debris, and discarded drug needles and syringes (SHARPS).

6. Decontamination, processing, and transportation proposals for both regulated and non-regulated ACM debris.

C. Unless otherwise indicated, procedural plans shall be submitted within ten days following the effective date of the Agreement.

1.02 SAFETY, HEALTH AND EMERGENCY RESPONSE PLAN

A. The Contractor shall provide a site specific Safety, Health and Emergency Response Plan (SHERP) which must be submitted for the Owner's Representative's and Owner's review within ten days following the effective date of the Contract. The SHERP shall be in accordance with Section 01101. No personnel shall enter the site until the Contractor's Safety, Health and Emergency Response Plan has been approved by the Owner's Representative and Owner.

1.03 WORK SCHEDULE

A. The Contractor shall develop and submit to the Owner's Representative, within ten days following the effective date of the Contract, a detailed work schedule which the Contractor proposes to follow. The schedule shall be in accordance with Section 01311.

B. The work schedule shall be kept current and shall reflect actual progress. Three copies of the updated schedule shall be submitted to the Owner's Representative on Monday of the following week. The submittal of updated schedules shall continue until the Work has been completed and accepted.

1.04 DEMOLITION PLAN

A. The Contractor shall develop and submit a Demolition Plan for approximately 129 buildings within 10 days of the effective date of the Agreement. The plan shall describe the methods, equipment, personnel, and sequence to be used for demolition. The Demolition Plan shall be in accordance with the Demolition and Removal Action Work Plan developed by the Owner's Representative and approved by the USEPA. The plan shall describe dust control measures to be employed and shall include the Construction Stormwater Plan prepared in accordance with 40 CFR 122.26. A Severe Inclement Weather Plan shall be included in the Contractor's Demolition Plan.

1.05 TRANSPORTATION AND DISPOSAL PLANS

A. The Contractor shall develop and submit, within 10 days of the effective date of the Contract, a detailed program for the handling and loading of the building rubble, and other features removed such as parking areas, sidewalks, and foundations. The plan shall include temporary stockpile/processing details, and the number of containers that the Contractor requires on a weekly basis, for loading the building rubble, and other debris. The plans shall include a description of transportation and disposal details for demolition debris and non-hazardous waste, and liquid wastes, including haul roads and the identification of disposal locations.

1.06 TEMPORARY FACILITY PLAN

A. The Contractor shall develop and submit a Temporary Facilities Plan within 10 days of the effective date of the Contract showing the location of all temporary facilities. Include detailed procedures for the decontamination area, fence installation, erosion control in accordance with the SWPPP, and material handling. The plan shall show all on site haul roads, drainage improvements, if required, and the location of loading areas for rubble and other debris. The Contractor shall coordinate the plan with others, furnishing containers, to ensure it can accommodate the truck traffic throughout the project.

1.07 PRE-DEMOLITION SURVEY

A. A pre-demolition survey has been conducted by others. Survey details are provided on the Drawings.

1.08 SHOP DRAWINGS 039685

A. Shop Drawings

1. Shop drawings, as defined in the General Conditions, and as specified in individual Sections include, but are not necessarily limited to, custom-prepared data such as fabrication and erection/installation drawings,

scheduled information, setting diagrams, actual shop work manufacturing instructions, custom templates, special working diagrams, individual system or equipment inspection and test reports, as applicable to the Work.

2. All shop drawings submitted by the Contractor's Subcontractors for approval shall be sent directly to the Contractor for preliminary checking. The Contractor shall be responsible for their submission at the proper time so as to prevent delays in delivery of materials.

B. Health and Safety Equipment

1. Product data and samples shall also include, if requested by the Owner's Representative, items of disposable clothing, safety equipment, breathing apparatus, communication devices, items of equipment to be used on the site, and any other items which are required by the Contractor's Safety, Health and Emergency Response Plan for the safety and health of all personnel on the site. Included shall be a description of the Contractor's personnel air sampling equipment.

1.09 CONTRACTORS RESPONSIBILITIES

A. The Contractor shall review shop drawings prior to submission to determine and verify the following:

1. Field measurements

2. Field construction criteria

3. Catalog numbers and similar data

4. Conformance with the Specifications

B. Each shop drawing and working drawing, submitted by the Contractor shall have affixed to it the following Certification Statement, signed by the Contractor: "Certification Statement: By this submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, and similar data and I have checked and coordinated each item with other applicable approved shop drawings and all Contract requirements."

C. Notify the Owner's Representative in writing, at the time of submittal, of any deviations in the submittals from the requirements of the Contract Documents.

D. The review and approval of shop drawings by the Owner's Representative shall not relieve the Contractor from his responsibility with regard to the fulfillment of the terms of the Contract. All risks of error and omission are assumed by the Contractor and the Owner's Representative will have no responsibility thereof.

E. No portion of the work requiring a shop drawing or working drawings, shall be started prior to the approval or qualified approval of such item. Materials purchased or on-site construction accomplished which does not conform to approved shop

drawings and data shall be at the Contractor's risk. The Owner will not be liable for any expense or delay due to corrections or remedies required to accomplish conformity.

F. Project work, materials, and installation shall conform with approved shop drawings, working drawings, and applicable samples.

G. Deviations from procedural plans shall be approved in advance by the Owner's Representative.

H. Substitute or "Or Equal" Items.

The Contract, if awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or "or-equal" items. Whenever it is indicated in the Drawings or specified in the Specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by the Contractor (if acceptable to the Owner's Representative), application for such acceptance will not be considered by Owner's Representative until after the Date of the Notice of Award. The procedure for submission of any such application by the Contractor and consideration by the Owner's Representative is set forth in the General Conditions.

1.10 SHOP DRAWING REVIEW GUIDELINES AND TRANSMITTAL CODES

A. The review of shop drawings, data, and samples will be for general conformance with the design concept and Contract Documents. They shall not be construed:

1. as permitting any departure from the Contract requirements;

2. as relieving the Contractor of responsibility for any errors, including details, dimensions, and materials;

3. as approving departures from details furnished by the Owner's Representative, except as otherwise provided herein.

B. The Contractor remains responsible for details and accuracy, for coordinating the work with all other associated work and trades, for selecting fabrication processes, for techniques of assembly, and for performing work in a safe manner.

C. If the shop drawings, data or samples submitted describe variations and show a departure from the Contract requirements which Owner's Representative finds to be in the interest of the Owner and to be so minor as not to involve a change in Contract Price or time for performance, the Owner's Representative may return the reviewed drawings without noting an exception.

D. Submittals will be returned to the Contractor under one of the following Codes:

Code 1 - "APPROVED" is assigned when there are no notations or comments on the submittal. When returned under this code the Contractor may release the equipment and/or material for manufacture.

Code 2 - "APPROVED AS NOTED". This code is assigned when a confirmation of the notations and comments IS NOT required by the Contractor. The Contractor may release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product.

Code 3 - "APPROVED AS NOTED/CONFIRM". This combination of codes is assigned when a confirmation of the notations and comments IS required by the Contractor. The Contractor may release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product. This confirmation shall specifically address each omission and nonconforming item that was noted. Confirmation is to be received by the Owner's Representative within 15 calendar days of the date of the Owner's Representative's transmittal requiring the confirmation.

Code 4 - "APPROVED AS NOTED/RESUBMIT". This combination of codes is assigned when notations and comments are extensive enough to require a resubmittal of the package. The Contractor may release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product. This resubmittal is to address all comments, omissions and non-conforming items that were noted. Resubmittal is to be received by the Owner's Representative within 15 calendar days of the date of the Owner's Representative's transmittal requiring the resubmittal.

Code 5 - "NOT APPROVED" is assigned when the submittal does not meet the intent of the Contract Documents. The Contractor must resubmit the entire package revised to bring the submittal into conformance. It may be necessary to resubmit using a different manufacturer/vendor to meet the Contract Documents.

Code 6 - "COMMENTS ATTACHED" is assigned where there are comments attached to the returned submittal which provide additional data to aid the Contractor.

Codes 1 through 5 designate the status of the reviewed submittal with Code 6 showing there has been an attachment of additional data.

E. Resubmittals will be handled in the same manner as first submittals. On resubmittals the Contractor shall direct specific attention, in writing on the letter of transmittal and on resubmitted shop drawings by use of revision triangles or other similar methods, to revisions other than the corrections requested by the Owner's Representative, or previous submissions. Any such revisions which are not clearly identified shall be made at the risk of the Contractor. The Contractor shall make corrections to any work done because of this type revision that is not in accordance to the Contract Documents as may be required by the Owner's Representative.

F. Partial submittals will not be reviewed. The Owner's Representative will be the only judge as to the completeness of a submittal. Submittals not complete will be returned to the Contractor, and will be considered "Not Approved" until resubmitted. The Owner's Representative may at his/her option provide a list or mark the submittal directing the Contractor to the areas that are incomplete.

G. Repetitive Review

1. Shop drawings and other submittals will be reviewed no more than twice at the Owner's expense. All subsequent reviews will be performed at times convenient to the Owner's Representative and at the Contractor's expense, based on the Owner's Representative's then prevailing rates. The Contractor shall reimburse the Owner for all such fees invoiced to the Owner by the Owner's Representative. Submittals are required until approved.

2. Any need for more than one resubmission, or any other delay in obtaining Owner's Representative's review of submittals, will not entitle Contractor to extension of the Contract Time.

H. If the Contractor considers any correction indicated on the shop drawings to constitute a change to the Contract Documents, the Contractor shall give written notice thereof to the Owner's Representative at least seven working days prior to release for manufacture.

I. When the shop drawings have been completed to the satisfaction of the Owner's Representative, the Contractor shall carry out the construction in accordance therewith and shall make no further changes therein except upon written instructions from the Owner's Representative.

1.11 SITE SECURITY PLAN

A. The Contractor shall develop and submit to the Owner's Representative, within ten days following the effective date of the contract, a detailed Site Security Plan. This plan shall be in accordance with Section 01540, Site Security.

1.12 SUBMISSION REQUIREMENTS

A. Make submittals promptly in accordance with approved schedule, and in such sequence as to cause no delay in the work.

B. Number of submittals required.

1. Safety, Health and Emergency Response Plan: Submit six copies.

2. Work Schedule: Submit six copies initially, then three updated schedules weekly thereafter.

3. Demolition Plan: Submit six copies.

4. Temporary Facilities Plan: Submit six copies.

5. Transportation and Disposal Plan: Submit six copies.

6. Shop Drawings: Submit six copies.

7. Others not listed above: Submit six copies.

C. Submittals shall contain:

1. The date of submission and the dates of any previous submissions.

2. The Project title and number.

3. Contractor identification.

4. The names of:

a. Contractor
b. Supplier
c. Manufacturer
d. Disposal Facilities Permits, etc.

5. Field dimensions, clearly identified as such.

6. Relation to adjacent or critical features of the work or materials.

7. Applicable standards, such as ASTM or Federal Specification number.

8. Identification of deviations from Contract Documents.

9. An 8-in x 3-in blank space for Contractor and Owner's Representative stamps.

1.13 RESUBMISSION REQUIREMENTS

A. Make any corrections or changes in the submittals required by the Owner's Representative and resubmit until approved.

B. Shop Drawings

1. Revise initial drawings or data, and resubmit as specified for the initial submittal.

2. Indicate any changes which have been made other than those requested by the Owner's Representative.

1.14 DISTRIBUTION

A. The Contractor shall distribute reproductions of approved shop drawings and copies of approved product data and samples, where required, to the job site file and elsewhere as directed by the Owner's Representative. Number of copies shall be as directed by the Owner's Representative but shall not exceed six (6).

1.15 GENERAL PROCEDURES FOR SUBMITTALS

A. Coordination of Submittal Times: The Contractor shall prepare and transmit each submittal sufficiently in advance of performing the related work or other applicable activities, or within the time specified in the individual work sections of the Specifications, so that the installation will not be delayed by processing times including disapproval and resubmittal (if required), coordination with other submittals, testing, purchasing, fabrication, delivery and similar sequenced activities. No extension of time will be authorized because of the Contractor's failure to transmit submittals sufficiently in advance of the Work.

1.16 EQUIPMENT LIST

A. Contractor shall submit a list of all equipment to be used during the execution of this project.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

A. Owner and Owner's Representative will review all submittals within 10 working days and return to the Contractor with comments for correction. Contractor will submit revised submittals within 10 working days.

END OF SECTION

SECTION 01311

CONSTRUCTION SCHEDULES

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

A. Within ten days after the effective date of the Contract, the Contractor shall prepare and submit to the Owner's Representative estimated construction progress schedules for all demolition work with subschedules of related activities which are essential to its progress.

B. Updated progress schedules shall be submitted on a weekly basis.

C. No partial payments shall be approved by the Owner's Representative until there is an approved construction progress schedule on hand.

D. The Contractor shall designate an authorized representative of his firm who shall be responsible for development and maintenance of the schedule and of progress and payment reports. This representative of the Contractor shall have direct project control and complete authority to act on behalf of the Contractor in fulfilling the commitments of the Contractor's schedule.

1.02 RELATED REQUIREMENTS

A. Conditions of the Contract.

B. Section 01010: Summary of Work.

C. Section 01200: Project Meetings.

D. Section 01300: Submittals.

1.03 FORM OF SCHEDULES

A. Prepare schedules in the form of a horizontal bar chart.

1. Provide separate horizontal bar for each trade or operation within each structure or activity.

2. Horizontal time scale: In weeks from start of construction and identify the first work day of each week.

3. Scale and spacing: To allow space for notations and future revisions.

4. Maximum sheet size: 24-inches x 36 inches.

B. Identify activities by major specification section numbers or major component of work.

1.04 CONTENT OF SCHEDULES

A. Construction Progress Schedule:

1. Show the complete sequence of construction by activity including all submittals.

2. Show the dates for the beginning of, and completion of, each activity in no more than a one-week increment scale.

3. Show projected percentage of completion for each activity, as of the first day of each month.

4. Show projected dollar cash flow requirements for each month of construction.

1.05 SCHEDULE REVISIONS

A. Indicate progress of each activity to date of submission.

B. Show changes occurring since previous submission of schedule:

1. Major changes in scope.

2. Activities modified since previous submission.

3. Revised projections of progress and completion.

4. Other identifiable changes.

C. Provide a narrative report to define:

1. Work completed during the reporting period.

2. Problem areas, anticipated delays, and the impact on the schedule.

3. Corrective action recommended, and its effect.

1.06 SUBMISSION

A. Submit initial schedules to the Owner's Representative within ten days after the effective date of the Contract.

1. The Owner's Representative will review schedules and return review copy within fourteen days after receipt.

2. If required, resubmit within seven days after return of review copy.

B. Submit revised weekly progress schedules.

1.07 DISTRIBUTION

A. Distribute copies of the revised schedules to:

1. Owner and Owner's Representative (six copies).

2. Contractor's job site file.

3. Subcontractors.

4. Other concerned parties.

B. Instruct recipients to report promptly to the Contractor, in writing, or during weekly construction meetings, any problems anticipated by the projections shown in the schedules.

PART 3 EXECUTION

3.01 RESPONSIBILITY FOR SCHEDULE COMPLIANCE

A. The specified contract time of 200 days includes delays for inclement weather, therefore, whenever it becomes apparent from the current monthly schedule that delays to the Critical Path have resulted, and hence, that the contract completion date will not be met, Contractor shall take some or all of the following actions at no additional cost to the Owner, submitting to the Owner's Representative for approval a written statement of the steps he intends to take to remove or arrest the delay to the Critical Path in the approved schedule.

1. Increased construction manpower in such quantities and crafts as will substantially eliminate, in the judgment of the Owner's Representative, the backlog of work.

2. Increase the number of working hours per shift up to a twelve hour day, the amount of construction equipment, or other means that will, sufficiently or substantially eliminate, in the judgment of the Owner's Representative, the backlog of work.

3. Reschedule activities to achieve maximum practical concurrence of accomplishment of activities, and comply with the revised schedule.

4. Costs incurred by the Owner arising from such lengthening of hours, including furnishing of inspectors, shall be the Contractor's responsibility and shall be deducted from monies due him. Failure of the Contractor to comply with the requirements of the Owner's Representative may be grounds for determination by the Owner that the Contractor is not proceeding at such rates as will insure completion within the specified time and may result in the termination of the right of the Contractor to continue the work.

5. The Contractor shall not work on the following holidays: May 31, July 4, Sept 4, November 23-24, December 25-26, 1995, and January 1, 1996.

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6. The Contractor shall not work on the preceding Saturday where the holiday falls on a Monday.

3.02 ADJUSTMENT OF CONTRACT SCHEDULE AND COMPLETION TIME

A. If the Contractor desires to make changes in his method of operating which affect the approved schedule, he shall notify the Owner's Representative in writing stating what changes are proposed and the reason for the changes. If the Owner's Representative approves these changes, the Contractor shall revise the schedule and submit for approval, without additional cost to the Owner. The schedule shall be adjusted by the Contractor only after prior approval of his proposed changes by the Owner's Representative.

B. Adjustments may consist of changing portions of the activity sequence and/or activity durations, division of approved activities, or other adjustments as may be approved by the Owner's Representative. The addition of extraneous, non-working activities and/or activities which add unapproved restraints to the schedule will not be approved.

C. If the completion of any activity, whether or not critical, takes longer than its approved duration, the Contractor shall submit for approval a schedule adjustment showing each such activity divided into two activities reflecting completed versus uncompleted work.

D. Shop drawings which are not approved on the first submittal or within the scheduled time shall be immediately rescheduled, as well as equipment and materials tests which do not pass on the first attempt will not be basis for time extensions or cost adjustments.

END OF SECTION

SECTION 01380

CONSTRUCTION PHOTOGRAPHS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

A. The Contractor shall employ a competent photographer to take preconstruction photographs of all construction areas prior to start of work and to take construction record photographs periodically during the course of the Work. An audio-video tape (VHS format) shall also be provided showing all construction areas with appropriate narration, prior to start of work.

1.02 RELATED REQUIREMENTS

A. Section 01010: Summary of Work

B. Section 01720: Project Record Documentation

1.03 PHOTOGRAPHY REQUIRED

A. Photographs taken in conformance with this Section shall be furnished to the Owner's Representative with each Application for Payment.

B. Photographs shall be taken at each of the stages of work as specified in this Section.

1. Provide three prints of each view.

2. Five (5) views of overall project site video taped weekly, as directed by the Owner's Representative.

C. Negatives:

1. The photographer shall release all negatives to the Owner following job completion.

2. Photographer shall agree to furnish additional prints to the Owner and Owner's Representative at commercial rates in effect at time of purchase.

1.04 COSTS OF PHOTOGRAPHY

A. The Contractor shall pay costs for specified photography and prints. Parties requiring additional photography or prints will pay photographer directly.

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PART 2 PRODUCTS

2.01 PRINTS

A. Color:

1. Paper: Single weight, color print paper.

2. Finish: Smooth surface, glossy.

3. Size: 5-inch x 7-inch.

B. Identify each print on back, listing:

1. Item photographed.

2. Name of Contract.

3. Orientation of view.

4. Date and time photographed and exposed.

5. Name and address of photographer.

6. *Photographer's numbered identification of exposure.*

PART 3 EXECUTION

3.01 TECHNIQUE

A. Factual presentation.

B. Correct exposure and focus.

3.02 VIEWS REQUIRED

A. Photograph from locations to adequately illustrate condition of work and state of progress.

3.03 DELIVERY OF PRINTS AND AUDIO-VIDEO TAPES

A. Deliver prints to the Owner's Representative with each Application for Payment.

B. Distribution of prints after processing is anticipated to be as follows:

1. Owner (one set).

2. Owner's Representative (one set).

3. Contractor (one set).

C. Color audio-video tapes, if made, will be kept by the Owner's Representative and delivered to the Owner with Project Record Documents.

D. Deliver all negatives to the Owner's Representative upon submittal of the Project Record Documents.

3.04 REQUIRED PHOTOGRAPHS

A. Required Stages of Work for Photographs on a one-time basis, and weekly audio-video tape (if made):

1. Prior to start of work.

2. During demolition work.

3. During ACM demolition and removal activities.

4. During truck loading and transportation.

5. Photograph each truck containing regulated ACM.

6. During decontamination procedures.

7. During backfilling of clean soil.

8. During regrading and hydroseeding.

9. Following demobilization of Contractor's equipment.

END OF SECTION

399698

SECTION 01500

TEMPORARY FACILITIES

PART 1 GENERAL

1.01 SCOPE OF WORK

A. Summary

1. This Section specifies temporary services and facilities, including utilities, construction and support facilities, security and protection. Facilities shall be maintained, expanded and modified as needed. Facilities shall be removed when no longer needed by the Contractor.

2. Furnish all labor, materials, equipment and incidentals required to construct the following facilities. All facilities shall be described in detail in the Contractor's Temporary Facility Plan, as specified in Section 01300.

a. Operation exclusion areas

b. Decontamination area

c. Temporary offices

d. Emergency medical facility

e. Equipment storage area

f. Personnel hygiene area

g. Truck manifesting facility

h. Truck scale

i. Fence enclosures with blinding

j. Erosion and runoff control

k. Rocked access ways

3. The Contractor shall be responsible for providing and maintaining facilities suitable for access for trucks hauling the debris and other materials.

B. Use Charges

1. Cost or use charges for temporary facilities are not chargeable to the Owner and will not be accepted as a basis of claims for a Change Order.

C. Regulations

1. Comply with applicable laws and regulations.

D. Standards

1. Comply with NFPA Code 241, "Building Construction and Demolition Operations", ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition" and NECA Electrical Design Library "Temporary Electrical Facilities."

a. Refer to "Guidelines for Bid Conditions for Temporary Job Utilities and Services", prepared by AGC and ASC.

b. Comply with NEMA, NEC and UL standards and regulations for temporary electric service. Install service in compliance with national Electric Code (NFPA 70).

E. Inspections

1. Contractor shall arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Contractor shall obtain and pay for required certifications and permits.

F. Conditions of Use

1. Contractor shall keep facilities clean and neat and operate in a safe and efficient manner. Necessary fire prevention measures shall be taken. The Contractor shall not allow hazardous, dangerous or unsanitary conditions, or public nuisances to develop or persist on the site.

PART 2 EXECUTION

2.01 LOCATION

A. All facilities specified herein shall be erected in the Operation Exclusion Areas, and the Temporary Facilities as shown on the Drawings.

2.02 OPERATION EXCLUSION AREAS

A. The Operation Exclusion Areas shall be available to the Contractor for the duration of the product.

B. The Operation Area may be used as a work area, and equipment storage.

C. The Operation Area may be used for volume reduction with heavy equipment, provided temporary protective measures are provided so as not to damage asphalt pavement and/or the Contractor repairs all damage to pavement.

2.03 DECONTAMINATION AREA

A. Facilities shall be provided for personal decontamination adjacent to Exclusion Zones, and for cleaning trucks before they exit the site.

B. The facility shall be installed whereas to collect all sediment washed from transport vehicles. All generated washwaters will be discharged to the City of Dallas sanitary sewage system following the issuance of a discharge permit from the City of Dallas.

2.04 TEMPORARY FACILITIES

A. Contractor's Office

1. The Contractor's temporary office shall be located within the Temporary Facilities Area. The temporary office shall contain all services necessary to conduct all required Work. The temporary office shall be described in the Temporary Facilities Plan as specified in Section 01300.

B. Owner's Representative Temporary Office Trailer

1. The Contractor shall provide a temporary office for the Owner's Representative and the EPA's oversight consultant, separate from the Contractor's temporary office. The temporary office trailer shall be constructed on a suitable foundation conforming to the manufacturer's specifications as approved by the Owner's Representative. The temporary office shall be a minimum of 1500 square feet. The office shall be weathertight, suitably ventilated, heated, air conditioned and provided with electrical service, two offices and a conference room, plan table, three desks, two 4 foot by 10 foot conference room tables, twenty chairs, four-four drawer filing cabinets, and sufficient light fixtures.

2. The Contractor shall supply all utilities, and pay all electric bills.

3. The Contractor shall supply 3 telephone lines: 1 dedicated fax line and 2 regular phone lines.

C. Emergency Medical Facilities

1. An area shall be provided to house emergency medical services in the Temporary Facilities Area.

D. Equipment Storage Facility

1. An area shall be provided to store all equipment necessary to conduct the Work.

E. Personnel Hygiene Facility

1. A facility shall be provided to house all equipment and fixtures in order to provide for the proper hygiene of all on-site personnel. Proper hygiene facilities will include showers.

2. All equipment and fixtures shall be properly supplied, installed and maintained in clean condition. Drain water from all washing facilities shall be disposed of properly in accordance with the applicable regulations.

3. The Personal Hygiene Facility shall be constructed on a suitable foundation as specified by the manufacturer and approved by the Owner's Representative.

F. Truck Manifesting Facility

1. Provide and maintain a facility to be used to keep track of, log and manifest trucks transporting demolition rubble.

G. Truck Scale

1. Provide and maintain a State-certified truck scale with a readout, to be used to weigh all trucks transporting demolition rubble prior to leaving the site.

2.05 TEMPORARY FENCED ENCLOSURE

A. Furnish all labor, materials, equipment and incidentals necessary to maintain temporary chain link fences and gates.

2.06 EROSION AND RUNOFF CONTROL

A. Construct hay bails to protect the surface waters of the State and the raceways, as shown on the Drawings and as required. Hay bails shall be securely anchored and maintained throughout the period of demolition and shall be properly disposed of upon completion of the Work.

2.07 ACCESS WAYS

A. A maximum of two (2) Access Ways shall be used for entering and exiting the site work areas. At no time shall the Access Ways be obstructed. Access Ways shall be maintained in a clean of debris and soils and safe condition. Access Ways shall be available to the Contractor for the duration of the project.

END OF SECTION

SECTION 01510

TEMPORARY SITE UTILITIES

PART 1 GENERAL

1.01 SITE REQUIREMENTS

A. For the purpose of performing the Work required by this Contract, utilities are defined as telephone, water supply, electrical power, and sanitary waste. The costs for obtaining and supplying these services to the site shall be assumed by the Contractor.

1.02 REGULATORY REQUIREMENTS

A. Obtain all necessary permits and approvals for the user of the provided utilities.

PART 3 EXECUTION

3.01 GENERAL

A. There are existing sources of water at the site. Connections shall be made at the locations provided by the Owner. Services, equipment, and materials shall be provided as required to operate and maintain all water systems, to assure that necessary services are provided. Contractor shall verify with Owner the exact location.

3.02 WATER SUPPLY

A. The Owner will provide a water source for the Contractor's use in the performance of the Work with on site hydrants. The Contractor shall provide the necessary water supply at sufficient volume and pressure to meet the requirements of the Work. The Contractor shall furnish and lay all hose lines (supplying them with approved backflow prevention), and maintain the hose system as required from the existing hydrants located on site. All demolition activities will be completed using a minimum of 2 fire hoses per building with adjustable nozzles.

B. Provide a portable wash unit and collection system for the Decontamination Area as specified in 01500.

C. All wash water shall be drained from the decontamination and disposed of as specified in Section 01500.

D. The water systems shall be maintained and protected from freezing until completion of the Work, and removed and disposed of as approved by the Owner's Representative.

3.03 ELECTRICAL SERVICE

A. The Contractor shall be responsible for providing a source of electrical service. The Contractor shall be responsible for electrical service to all work areas as necessary to conduct the work.

B. The Contractor shall be responsible for installation and maintenance for on-site power connections.

C. The Contractor shall provide ground fault circuit interrupters, double insulated portable power tools, and other means of assuring continuous electrical grounding as needed.

3.04 SANITARY WASTE SYSTEM

A. Sanitary wastewater from showers and sinks shall be disposed of into a wastewater collection unit and disposed of in accordance with all applicable regulations.

B. Temporary toilet facilities shall be of the chemical type if not provided in the temporary facilities trailer. All chemical toilets shall be pumped and cleaned semi-weekly. Provide separate facilities for males and females.

3.05 TELEPHONE SERVICE

A. The Contractor shall be responsible for paying for, providing and maintaining hardline telephone service at the Contractor's temporary field office and the Owner's Representative temporary field office as specified in Section 01500.

END OF SECTION

399704

SECTION 01540

SITE SECURITY

PART 1 GENERAL

1.01 SCOPE OF WORK

A. The Contractor shall be responsible for maintaining site security within the Limits of Contract identified in the Drawings, 24 hours a day, 7 days a week, including holidays throughout the duration of the Contract.

B. Site perimeter shall be closed except for ingress and egress. Site perimeter integrity shall be maintained by the Contractor at all times, repairing breaks and transgressions within 2 hours of discovery. This maintenance is at full cost to the Contractor.

C. The Contractor shall provide a guard house, located so as to monitor all work sites.

D. The Contractor shall provide security identification specific to the site, for all on-site personnel and Contractor personnel entering the sites.

E. The Contractor shall prepare and submit a security plan to the Owner's Representative for acceptance in accordance with Section 01300, Submittals.

PART 2 EXECUTION

2.01 SECURITY PLAN

A. The Contractor shall develop and submit a Site Security Plan to the Owner's Representative for acceptance in accordance with Section 01300 Submittals. This plan shall address:

1. Number of security personnel.

2. Duties.

3. Names and qualifications of personnel.

4. Description of proposed daily security operations.

5. Method and frequency for conducting security checks.

6. Description of how a breach of security will be handled. A breach of security shall include, but not be limited to, unauthorized personnel located on the site, unauthorized personnel attempting to gain access to the site, and unauthorized access points to the active hazardous work areas, including broken fences and unlocked gates or doors.

2.02 SITE SECURITY

A. The Security Officer or his designee shall be present at the work sites or guard house during active demolition operations. A minimum of two armed security guards shall be present 24-hrs./day. Perimeter rounds will be a minimum of twice every 8 hours.

B. The Contractor shall maintain a guard house and a security office near the work site, as specified on the drawings.

C. The Contractor shall be responsible for insuring that all security personnel have complied with the requirements for personnel, including hazardous waste awareness training and medical monitoring.

D. The Contractor shall be responsible for maintaining a log of all security incidents. This log will be furnished to the Owner's Representative upon request and/or the completion of the contract.

E. The Owner's Representative shall have the right of approval and rejection of any and all security-assigned personnel of the Contractor for the duration of the Contract.

F. The Contractor must coordinate visits with local law enforcement agencies, including police, sheriff, highway patrol, emergency medical care units, fire department, and utility emergency teams. Emergency response and contingency plans shall be submitted by the Contractor as part of the Safety, Health and Emergency Response Plan as specified in Section 01101.

G. The Contractor shall be responsible for insuring that all visitors to the site are escorted at all times.

2.03 PERSONNEL IDENTIFICATION

A. Security identification, specific to the site, shall be provided by the Contractor for all on-site personnel and Contractor personnel entering the work sites, showing:

1. Name of individual.

2. Name of employer.

B. The Contractor shall be responsible for and guarantee that such identification shall be worn by each individual and be visible at all times while the individual is on the work sites.

C. The Contractor shall exclude personnel not properly identified from the work sites.

2.04 ENTRANCE CONTROL

A. Control of all persons and vehicles entering and leaving the work sites shall be provided by the Contractor.

1. The Contractor shall require each person to display proper identification.

2. The Contractor shall maintain a list of persons authorized for site entry and submit a copy of the list to the Owner's Representative on request.

3. The Contractor shall require all personnel and visitors having access to the work sites to sign in and sign out, and all visitors be escorted at all times. The Contractor shall keep a record of all site access. A log of all visitors shall be maintained and must be surrendered upon completion of the contract.

4. Site visitors shall not be permitted to enter active Exclusion Zones.

5. Vehicular access within Edgar Ward Place shall be restricted to authorized vehicles only. Use of site-designated parking areas shall be restricted to vehicles of the Owner, Owner's Representative, EPA Representatives, Contractor, Subcontractor, and service personnel assigned to the site and actually on duty.

6. Personal vehicles shall not be authorized to enter the Exclusion Zones.

3.05 TRAFFIC CONTROL

A. The Contractor shall be responsible for controlling vehicular traffic on and through the site in order to assure safe and efficiency operations.

B. Parking areas shall be regulated to insure free entry and egress of the site.

END OF SECTION

39707

SECTION 01562

DUST CONTROL

PART 1 GENERAL

1.01 SCOPE OF WORK

A. The Contractor shall conduct operations and maintain the Site so as to minimize the creation and dispersion of dust and asbestos fibers. Dust control shall be used throughout the Work at this Site. Special attention should be given to ACM buildings to ensure that the building and building debris remains sufficiently wet at all times during the demolition and loading processes. Contractor shall perform dust control operations, in an approved manner, whenever necessary or when directed by the Owner's Representative, even though other work on the project may be suspended. Dust control shall be generally accomplished by the use of a minimum of two fire hoses with adjustable nozzles on each building being demolished. During the crushing and loading of non regulated ACM debris, dust suppression will be accomplished by using two fire hoses with adjustable nozzles. The loading of regulated ACM debris will still require the use of two firehoses for dust and asbestos fiber suppression.

B. A minimum of one fire hose with an adjustable nozzle must be used during the breaking and removal of each building foundation.

C. All roads must be wetted periodically to eliminate dusts caused by vehicular traffic.

D. All disturbed and/or bare soil areas must be periodically wetted to suppress any potential dusting.

E. The Contractor's methods of controlling dust shall meet all air pollutant standards as set forth by Federal and State regulatory agencies and the City of Dallas. The Contractor shall implement strict dust control measures during all phases of construction so as to not allow dust and/or asbestos fibers from becoming airborne. Methods for dust control shall be approved by the Owner's Representative prior to implementation. Dust suppression methods may and will be modified as deemed necessary during the course of the project.

F. Demolition of buildings with regulated ACM may not be demolished if wind gusts exceed 15 mph.

G. Demolition of buildings with non regulated ACM may not be demolished if wind gusts exceed 25 mph.

1.02 RELATED WORK

A. Air Monitoring is included in Section 01046.

039708

END OF SECTION

SECTION 01580

PROJECT IDENTIFICATION AND SIGNS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

A. Furnish, install and maintain project identification sign.

B. Remove sign on completion of construction.

C. Exclusion Zones signs must be displayed during demolition of buildings with regulated ACM.

1.02 RELATED REQUIREMENTS

A. Summary of Work is included in Section 01010.

1.03 SUBMITTALS

A. In accordance with the requirements of this Section, the Contractor shall provide a sketch showing the layout of the project identification and signs to be posted at the site.

1.04 PROJECT IDENTIFICATION SIGN

A. One painted sign, of not less than 4 feet by 8 feet area (32 square feet), with painted graphic content to include:

1. Title of Project.

2. Name of Owner with Owner's logo.

3. Names of the Professional Owner's Representative Consultant.

4. Prime Contractor.

5. Major subcontractors.

B. Graphic design, style of lettering: As approved by the City of Dallas and subject to the approval of the local Community Relations Department or its equivalent and applicable local regulations for signs.

C. Erect on the site at a lighted location of high public visibility, adjacent to main entrance to site, as approved by the Owner's Representative and the Owner.

39709

1.05 INFORMATIONAL SIGNS

A. Painted signs with painted lettering, or standard products.

1. Size of signs and lettering: as required by regulatory agencies, or as appropriate to usage.

2. Colors: as required by regulatory agencies, otherwise of uniform color throughout Project.

B. Erect at appropriate location to provide required information.

1.06 QUALITY ASSURANCE

A. Sign Painter: Professional experience in type of work required.

B. Finishes, Painting: Adequate to resist weathering and fading for scheduled construction period and washable to sufficiently remove any dirt to remain legible.

PART 2 PRODUCTS

2.01 SIGN MATERIALS

A. Structure and Framing: May be new or used, wood or metal, in sound condition structurally adequate to work and suitable for specified finish.

B. Sign Surfaces: Exterior softwood plywood with medium density overlay, standard large sizes to minimize joints.

1. Thickness: As required by standards to span framing members, to provide even, smooth surface without waves or buckles.

C. Rough Hardware: Galvanized.

D. Paint:

1. Colors for structure, framing, sign surfaces and graphics: White background with navy blue lettering.

PART 3 EXECUTION

3.01 PROJECT IDENTIFICATION SIGN

A. Paint exposed surfaces of supports, framing and surface material; one coat of primer and one coat of exterior paint.

B. Paint graphics in styles, sizes and colors selected.

039710

3.02 MAINTENANCE

A. Maintain signs and supports in a neat, clean condition; repair damages to structure, framing or sign.

3.03 REMOVAL

A. Remove signs, framing, supports and foundations at completion of project.

END OF SECTION

J99711

SECTION 01700

CONTRACT CLOSEOUT

PART 1 GENERAL

1.01 SCOPE OF WORK

A. Work activities shall include the following:

1. Decontamination of all Contractor equipment, materials, and vehicles used within the demolition area.

2. Disposal of decontamination washwater and material accumulated during site work;

3. Collection and disposal of all Contractor-generated materials as necessary, and equipment for which decontamination is inappropriate;

4. Disconnection and removal of temporary utilities from the site;

5. Repair of existing site fences damaged during the performance of the Work and installation of new permanent fencing, if required;

6. Removal of temporary facilities;

7. Restoration of any pavement damaged by the Contractor or by others providing transportation and disposal, as specified in Section 02576;

8. Restoration of the temporary storage areas;

9. Removal of all excess soil not used in backfilling.

10. Final cleaning of work areas.

11. Hydromulching of all disturbed areas.

PART 2 EXECUTION

2.01 FINAL APPROVAL

A. Prior to removal from the site, all decontaminated equipment and materials shall be inspected and approved by the Owner's Representative.

B. The level of decontamination and approval criteria shall be based on the use requirements of each item as specified herein.

39712

2.02 DECONTAMINATION OF EQUIPMENT AND MATERIALS

A. Without exception, all equipment and materials used, shall be decontaminated prior to final removal. Decontamination shall take place in the Decontamination Area.

B. The Contractor shall clean soil, debris, and dust off all trucks, including those furnished by others, before the trucks exit the site at all times.

C. Approval shall be based on visual inspection by the Owner's Representative.

2.03 SITE CLOSURE

A. All rubbish, debris, and temporary barriers shall be removed from the site. The work area shall be left neat and orderly.

2.04 DECONTAMINATION AREA CONTROLS TO BE REMOVED

A. All collection and filtration devices required shall be disconnected, flushed clean, removed, and/or disposed of properly.

2.05 WASH UNIT

A. Equipment wash units shall be the final equipment removed from the Decontamination Area.

2.06 SECURITY

A. Upon completion of equipment, materials, and personnel decontamination and removal from the site, the Contractor shall remove the existing perimeter and security fences.

2.07 SITE ROADS

A. At the completion of the Work, the Contractor shall restore to a condition suitable for vehicular traffic, as approved by the Owner's Representative. All surfaces, paved or unpaved shall be restored to a condition at least equal to, or better than, the condition existing prior to the start of any work.

B. Replacement of curb and gutters along removed parking areas shall be reconstructed in accordance with standard industry practices.

END OF SECTION

039713

SECTION 01720

PROJECT RECORD DOCUMENTATION

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDES

A. Maintain at the Contractor's field office for the Owner and Owner's Representative one record copy of:

1. Drawings.
2. Specifications.
3. Addenda.
4. Change Orders and other Modifications to the Contract.
5. Owner's Representative's Field Orders or written instructions.
6. Approved Shop Drawings and Working Drawings.
7. Field test records.
8. Laboratory analyses.
9. Construction photographs and negatives.
10. Medical surveillance records.
11. Disposal location photographs, and survey of disposal locations at landfill.

1.02 RELATED REQUIREMENTS

A. Section 01101: Safety, Health, and Emergency Response Plan.

B. Section 01300: Submittals.

C. Section 01380: Construction Photographs.

1.03 MAINTENANCE OF DOCUMENTS AND SAMPLES

A. Store documents and samples in Contractor's field office apart from documents used for construction.

1. Provide files and racks for storage of documents.
2. Provide locked cabinet or secure storage space for storage of samples.

B. File documents and samples in accordance with CSI/CSC format.

C. Maintain documents in a clean, dry, legible condition and in good order.

D. Make documents available at all times for inspection by the Owner's Representative.

E. As a prerequisite for monthly progress payments, the Contractor is to exhibit at the progress meeting the currently updated "documents" for review by the Owner's Representative and the Owner.

1.04 RECORDING

A. Record information concurrently with construction progress. Do not conceal any work until required information is recorded.

B. Drawings: Legibly mark to record actual construction:

1. Field changes of dimensions and detail.

2. Changes made by Change Order.

3. Details not on original contract drawings.

C. Specifications and Addenda: Legibly mark each Section to record:

1. Changes made by Change Order(s).

D. Shop Drawings (after final review and approval): maintain one complete set of record shop drawings.

1.05 SUBMITTAL

A. At Contract close-out, deliver Documents to the Owner's Representative for the Owner.

B. Accompany submittal with transmittal letter in duplicate, containing:

1. Date.

2. Project title and number.

3. Contractor's name and address.

4. Title and number of each Document.

5. Signature of Contractor or his authorized representative.

END OF SECTION

39715

Division 2

Site Work

SECTION 02060

DEMOLITION

PART 1 GENERAL

1.01 SCOPE OF WORK

A. Furnish all labor, materials, equipment and incidentals required to demolish all buildings and appurtenances, and remove and dispose of demolition debris containing both regulated and nonregulated ACM.

B. Demolition, modifications and removals which may be specified under other Sections shall conform to requirements of this Section.

C. Demolition and Removal includes the following

1. The demolition of approximately 129 buildings.
   - approximately 14 of these buildings are non abatable for asbestos.
   - approximately 36 of these buildings are partially nonabatable for asbestos.

2. Demolition of approximately 132 building foundations, piers, and all sidewalks.

3. Demolition of one "internal" parking lot located on Applegrove street.

4. Demolition of 25 parking lots located adjacent to the buildings to be demolished and along the perimeter of the following streets (see Figure 1, Section 02200)
   - Goldman Street
   - Fishtrap Road
   - Applegrove Street
   - Kingbridge Street

5. Removal of existing aboveground utilities and value and meter boxes.

6. Loading and hauling and proper disposal of all demolished debris.

1.02 QUALITY ASSURANCE

A. Contractor shall provide a Demolition Plan, Work Schedule, Transportation and Disposal Plan, Temporary Facilities Plan, and a Safety, Health and Emergency Response Plan, as per Section 01300.

1.03 SUBMITTALS

A. The Contractor shall submit to the Owner's Representative for approval, proposed methods and operations of demolition of the structures in accordance with Section 01300 prior to the start of work. Include in the schedule the coordination of shutoff, capping and continuation of utility service as required.

B. The Contractor shall provide a detailed sequence of demolition and removal work to ensure the uninterrupted progress of the Owner's operations. The sequence of work will follow the SWPPP guidelines for sequence of work to prevent contaminated stormwater runoff. Sequence shall be compatible with sequence of construction and shutdown coordination requirements as specified in Section 01700.

1.04 JOB CONDITIONS

A. Protection:

1. The contractor shall ensure the safety of all personnel involved in the demolition process.

2. The Contractor shall protect structures and utilities designated to remain intact.

3. The Contractor shall protect the trees throughout the facility to the fullest extent possible.

B. Maintaining Traffic:

1. The Contractor shall conduct demolition and disposal operations and the removal of equipment and debris to ensure minimum interference with roads, streets, walks both onsite and offsite and to ensure minimum interference with occupied or used facilities.

2. The Contractor shall not close or obstruct streets, sidewalks, alleys or passageways without permission from authorities having jurisdiction.

3. The Contractor shall provide alternate routes around closed or obstructed traffic ways, if required by governing authorities.

C. Notification

1. The contractor shall conduct a test building demolition to meet the satisfaction of the owner and the owner's representative. At least 48 hours prior to commencement of the demolition process the Contractor shall notify the Owner's Representative in writing of his proposed schedule. Contractor shall provide an update of this schedule every 30 days and whenever significant scheduling occurs. Owner shall inspect the existing equipment and to identify and mark those items which are to remain the property of the Owner. No removals shall be started without the permission of the Owner's Representative.

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D. Conditions of Structures

1. The Owner and the Owner's Representative assume no responsibility for the actual condition of the structures to be demolished or modified.

2. Conditions existing at the time of inspection for bidding purposes will be maintained by the Owner insofar as practicable. However, variations within a structure may occur prior to the start of demolition work.

E. Repairs to Damage

1. The Contractor shall promptly repair damage caused to adjacent facilities by demolition operation as directed by Owner's Representative and at no cost to the Owner. Repairs shall be made to a condition at least equal to that which existed prior to construction.

1.05 UTILITIES

A. The Contractor shall be solely responsible for making all necessary arrangements and for performing any necessary work involved with the discontinuance or interruption of all public and private utilities or services under the jurisdiction of the utility companies.

B. All utilities being abandoned shall be disconnected, terminated and plugged at the service mains in conformance with the requirements of the utility companies or the municipality owning or controlling them.

C. The Contractor shall be responsible for rerouting all utilities to occupied areas not included under this project. The discontinuance time period shall be kept at a minimum. Additionally, all affected people must be notified a minimum of 48 hours prior to the interruption of services.

PART 2 EXECUTION

2.01 INSPECTION

A. The Contractor shall verify to the Owner's Representative that structures to be demolished are not occupied.

B. The Contractor shall not commence work until conditions are acceptable to Owner's Representative. Review all structures to be demolished with the Owner's Representative prior to start of work.

2.02 PREPARATION

A. The Contractor shall arrange for, and verify termination of utility services to include removing meters and capping lines.

2.03 DEMOLITION

A. All structures shall be demolished in accordance with demolition procedures and schedule submitted to and reviewed by the Owner's Representative.

H. The Contractor shall terminate utilities according to the following Schedule; or as otherwise directed by the Owner and/or Owner's Representative.

Service	Location
Water	At nearest street main
Sanitary Sewer	At trunk line leaving building
Storm Sewer	Remain intact
Gas	At nearest valve to building or main meter

I. The Contractor shall be responsible for providing Owner with as plans locating remaining utility mains to the nearest one (1) foot after final grading.

2.04 DISPOSAL

A. The Contractor shall remove nonhazardous demolition debris (described in Section 13760), and transport or make arrangements for transportation to and Owner's Representative approved landfill. Any permit required for the storage, hauling and disposing of this material shall be obtained by the Contractor prior to commencing hauling operations.

Any Class I nonhazardous material shall be removed and transported by the Contractor to an Owner's Representative approved licensed and permitted Type I landfill. Any permit required for the storage, hauling, and disposing of this material shall be obtained by the Contractor prior to commencing hauling operations.

B. The Contractor shall be responsible for manifesting all offsite shipments of waste as per TNRCC and EPA specifications.

C. The Contractor shall not burn demolition debris.

D. The storage or sale or removal of removed items on the Site will not be permitted unless prior written authorization has been granted by the Owner's Representative and/or Owner.

E. Salvaging of nonregulated ACM demo debris may be permitted provided the following:

1. The salvaging of debris does not impede the demolition schedule.

2. All money generated from salvaged debris will be provided to the Owner under a credit change order.

3. The contractor has written authorization from the owner and/or owner's representative.

2.05 DAMAGE

A. The Contractor shall promptly repair damage caused to adjacent facilities by demolition operations as directed by the Owner's Representative and at no cost to the Owner.

2.06 POLLUTION CONTROL

A. For dust control, refer to Section 01562.

B. Pollution Controls: Use water sprinkling, temporary enclosures and other suitable methods to limit the amount of dust and/or ACM in the air to the lowest practical level. Comply with governing regulations pertaining to environmental protection.

1. Do not use water when it may create hazardous or objectionable conditions such as ice, flooding, and pollution.

END OF SECTION

SECTION 02100

SITE PREPARATION

PART 1 GENERAL

1.01 SCOPE OF WORK

A. Furnish all labor, materials, equipment and incidentals required to prepare the site for active remedial operations, prior to handling or moving any waste.

B. The Contractor's attention is directed to any Soil Erosion and Sediment Control Ordinances in force. The Contractor shall comply with all applicable sections of these ordinances.

1.02 TRAFFIC

A. Conduct minimal site-clearing operations to ensure minimum interference with roads, streets, walks and other adjacent occupied or used facilities. Do not close or obstruct streets, walks, or other occupied or used facilities without permission from authorities having jurisdiction.

1.03 PROTECTION

A. Provide temporary fences, barricades, coverings, or other protection to preserve existing items indicated to remain and to prevent injury or damage to persons or property. Provide protection for adjacent properties as required.

B. Restore damaged work, other than that designated to be demolished, to condition existing prior to start of work.

C. Protect existing trees and vegetation that are indicated to remain from physical damage. Do not store materials or equipment within tree drip line.

1.04 EXISTING SERVICES

A. Locations indicated are approximate; determine exact location before commencing work. Coordinate with local utility service requirements and comply with their instructions.

1.05 CLEARING

A. Clearing of trees will only be permitted if the tree impedes the demolition activities.

B. All cleared trees shall be removed to a depth of no less than 2.0' below the ground surface.

C. All cleared trees shall be disposed with the non regulated ACM debris.

1.06 PRESERVATION OF PUBLIC PROPERTY

A. The Contractor shall exercise extreme care to avoid unnecessary disturbance of developed public property outside the limits of work under this Contract. Trees, shrubbery, gardens, lawns, and other landscaping, which in the opinion of the Owner's Representative must be removed, shall be replaced and replanted to restore the property to the condition existing prior to construction.

B. The Contractor shall clean up the construction site areas extending across developed public property immediately after construction is completed upon approval of the Owner's Representative.

C. Photographs of the Site shall be taken before any work is started and also after job completion for comparison purposes to assure property is accurately preserved. (See Section 01380).

END OF SECTION

SECTION 02200

REMOVAL OF SIDEWALKS AND SITE IMPROVEMENTS

PART 1 GENERAL

1.01 SCOPE OF WORK

A. Furnish all work labor, supervision, materials, equipment, tools, permits,and incidentals necessary to perform all removal of site improvements as shown on the Drawings and specified herein. The Work as described under this Section shall include, but not necessarily be limited to removal of structures, sidewalks, parking areas (as appropriate, see Figure 1), electrical boxes (as appropriate), meter boxes (as appropriate), valve vaults (as appropriate), and all related work.

B. Topsoil, if any, excavated under this Section that is not contaminated must be replaced during site grading operations.

1.02 RELATED WORK

A. Dust Control is included in Section 01562.

B. Site Preparation is included in Section 02100.

C. Backfill and Compaction is included in Section 02222.

D. Loaming, Hydroseeding and Erosion Control is included in Section 02930.

E. Handling, Loading, Transportation and Disposal of Building Debris and other site improvements is included in Section 13765.

1.03 SUBMITTALS

A. Submit to the Owner's Representative for review the proposed methods of demolition. Review shall be for method only. The Contractor shall remain responsible for the adequacy and safety of the methods.

PART 2 PRODUCTS NOT USED

PART 3 EXECUTION

3.01 EXCAVATION AND REPLACEMENT OF SOIL FOR FOUNDATIONS

A. Complete excavation of approximately 129 building foundations and replacement of soils in the building area shall be to the depth and lines and aerial extent shown on the Drawings.

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B. Refill of the excavation shall be with common fill from the DHA stockpile on the west side of Leath Street, between Kingbridge and Applegrove Streets, and placed and compacted as specified in Section 02222, Backfill and Compaction.

3.02 EXCAVATION AND BACKFILLING OF PIPELINE TRENCHES

A. Excavation for all pipelines shall be carried out "in-the-dry" and in a manner which will preserve the undisturbed state of the subgrade soils. For the purpose of this work, "in-the-dry" is defined as within 2 percent of the optimum moisture content of the soil. The excavations may be completed with shoring and bracing of open cuts.

B. All pipeline excavations shall be backfilled with structural fill compacted as specified below. Where it is impractical to use large equipment for compaction or when such methods, in the opinion of the Owner's Representative, are disturbing the surrounding natural subgrade, the fill shall be compacted using hand-operated mechanical compactors. The lift thickness shall not exceed six (6) inches measured before compaction when hand-operated equipment is used.

3.03 EXCAVATION AND BACKFILLING OF SMALL BURIED PIPE AND TUBING TRENCHES

A. Trenches for buried plastic pipe and flexible tubing shall be excavated by hand or mechanical trenching machines in accordance with these Specifications and as shown on the Drawings. All such trenches shall be backfilled as shown on the Drawings. Compaction shall be accomplished by foot tamping or other approved methods.

3.04 MISCELLANEOUS EXCAVATION

A. The Contractor shall perform all remaining miscellaneous excavation. The Contractor shall make all excavations necessary to remove roadways, driveways, and any other miscellaneous excavation required under this Contract.

3.05 DISPOSAL OF SURPLUS AND UNSUITABLE MATERIALS

A. No excavated materials shall be removed from the Site or disposed of by the Contractor except as specified by the Owner's Representative. Materials shall be neatly piled so as not to inconvenience the public and adjoining property owners until used or otherwise disposed of as specified below.

B. Suitable excavated materials, as approved by the Owner's Representative, shall be used for fill embankments or to backfill trenches.

C. Surplus and/or unsuitable material shall become the property of the Contractor and shall be removed and legally disposed of by him off the Site. Any permit required for the hauling and disposing of this material shall be obtained by the Contractor prior to commencing hauling operations.

END OF SECTION

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FIGURE 1
PARKING LOTS FOR REMOVAL
DHA - EDGAR WARD PLACE

JONES AND NEUSE, INC.
Environmental and Engineering Services

SECTION 02222

BACKFILLING AND COMPACTION

PART 1 GENERAL

1.01 SCOPE OF WORK

A. Furnish all labor, materials, equipment and incidentals necessary to perform all backfill, fill and grading required to complete the work. The work shall include, but not necessarily be limited to: all backfilling, fill, grading, disposal of waste and surplus materials and all related work.

1.02 SUBMITTALS

A. Submit to the Owner's Representative for review the proposed methods of backfilling and filling for the various portions of the work. Review shall be for method only. The Contractor shall remain responsible for the adequacy and safety of the methods.

1.03 FILL MATERIALS

A. The Contractor shall use the DHA stockpile on the west side of Leath Street, between Kingbridge and Applegrove Streets, as a source for common fill.

B. The common fill material in the DHA stockpile has been tested by the owner's representative and is acceptable for use on this site.

C. Any excess fill shall be brought in offsite by the contractors at the discretion of the owner's representative.

PART 2 EXECUTION

2.01 BACKFILLING - COMMON FILL

A. Material conforming to the requirements of common fill shall be placed in layers having a maximum thickness of 12-in measured before compaction.

B. No backfilling shall be done when the material is too wet either from rain or from excess application of water. At such times, work shall be suspended until the previously placed and new materials have dried sufficiently to permit proper compaction.

2.02 GRADING

A. The surface of filled areas shall be backfilled and graded to match the existing grade or as otherwise directed by the Owner's representative.

B. During the process of grading, the subgrade shall be maintained in such condition that it will be well drained at all times.

C. The surface of filled areas shall be graded to smooth true lines. No soft spots or uncompacted areas will be allowed in the work.

D. If at the time of grading it is not possible to place any material in its proper section it shall be stockpiled in approved areas for later use. No extra payment will be made for the stockpiling or double handling of material.

E. The right is reserved to make minor adjustments or revisions in lines or grades if found necessary as the work progresses, due to discrepancies on the Drawings or in order to obtain satisfactory construction.

F. Stones or rock fragments larger than 2-inches in their greatest dimensions will not be permitted in the top 6-inches of the finished subgrade.

END OF SECTION

SECTION 02270

SEDIMENTATION AND EROSION CONTROL

PART 1 GENERAL

1.01 SCOPE OF WORK

A. Furnish all labor, materials, equipment and incidentals necessary to perform all installation, maintenance, removal and area cleanup related to sedimentation control work as shown on the Drawings and as specified herein. The work shall include, but not necessarily be limited to; installation of temporary access ways and staging areas, silt fences, stone filter boxes, hay bale filter berms, sediment removal and disposal, device maintenance, removal of temporary devices, temporary mulching, excelsior matting installation and final cleanup.

1.02 RELATED WORK

A. Removal of Sidewalks and Site Improvements is included in Section 02200.

B. Loaming, Hydroseeding and Erosion Control, Sodding and Seeding is included in Section 02930.

C. Dust control is included in Section 01562.

1.03 SUBMITTALS

A. Within 10 days after award of Contract, the Contractor shall submit to the Owner's Representative for approval, technical product literature for all commercial products to be used for sedimentation and erosion control.

1.04 QUALITY ASSURANCE

A. The Contractor shall be responsible for the timely installation and maintenance of all sedimentation control devices necessary to prevent the movement of sediment from the construction site to off site areas or into the stream system via surface runoff or underground drainage systems. Measures in addition to those shown on the Drawings necessary to prevent the movement of sediment off site shall be installed, maintained, removed, and cleaned up at the expense of the Contractor. No additional charges to the Owner will be considered.

B. Sedimentation and erosion control measures shall conform to the requirements outlined in the Storm Water Pollution Prevention Plan (SWPPP), prepared by the Owner's Representative. The SWPPP will be considered as part of the contract documents.

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PART 2 PRODUCTS

2.01 MATERIALS

A. Stormwater Inlet coverings shall be rip-rap as follows:

1. Rip-rap shall be sound, durable rock which is roughly rectangular shape and of suitable quality to insure permanence in the condition in which it is to be used. Rounded stones, boulders, sandstone or similar soft stone will not be acceptable. Material shall be free from overburden, spoil, shale, and organic material, meet the Owner's Representative's approval and be well graded within the following limits:

Weight of Stone	Percent Finer by Weight
40 lb	100
12 lb	50
3 lb	0

B. Straw mulch may be utilized on all newly graded areas to protect areas against washouts and erosion. Straw mulch shall be comprised of threshed straw of oats, wheat, barley, or rye that is free from noxious weeds, mold or other objectionable material. The straw mulch shall contain at least 50 percent by weight of material to be 10-in or longer. Straw shall be in an air-dry condition and suitable for placement with blower equipment.

C. Hay bales will be placed around each stormwater inlet to assist in the collection of sediments.

PART 3 EXECUTION

3.01 INSTALLATION

A. Silt Control Installation

1. Silt controls shall be positioned as indicated on the SWPPP and as necessary to prevent off site movement of sediment produced by construction activities as directed by the Owner's Representative.

B. Construct filter boxes as detailed on the Drawings, from 1/4-inch woven wire mesh. Fill with crushed stone and surround with hay bales on all drop inlets and manholes to storm drain system as each inlet is completed. An alternate method is to ring each inlet with a silt fence.

C. Staging areas and access ways shall be surfaced with a minimum depth of 4-inch of crushed stone.

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3.02 MAINTENANCE AND INSPECTIONS

A. Inspections

1. Contractor shall make a visual inspection of all sedimentation control devices once per week and promptly after every rainstorm. If such inspection reveals that additional measures are needed to prevent movement of sediment to offsite areas, Contractor shall promptly install additional devices as needed. Sediment controls in need of maintenance shall be repaired promptly.

B. Device Maintenance

1. Silt Controls

a. Remove accumulated sediment once it builds up to one-half of the height of the fabric.

b. Replace damaged fabric, or patch with a 2-ft minimum overlap.

c. Make other repairs as necessary to ensure that the fence is filtering all runoff directed to the fence.

2. Filter Boxes:

a. Replace crushed stone when it becomes saturated with silt.

b. Replace hay bales if signs of deterioration are present.

3. Add crushed stone to access ways and staging area as necessary to maintain a firm surface free of ruts and mudholes.

3.03 TEMPORARY MULCHING

A. Apply temporary mulch to areas where rough grading has been completed but final grading is not anticipated to begin within 30 days of the completion of rough grading.

B. Straw mulch shall be applied at rate of 100 lbs/1000 ft^2 and tacked with latex acrylic copolymer at a rate of 1 gal/1000 ft^2 diluted in a ratio of 30 parts water to 1 part latex acrylic copolymer mix.

3.04 REMOVAL AND FINAL CLEANUP

A. Once the site has been fully stabilized against erosion, remove sediment control devices and all accumulated silt. Dispose of silt and waste materials in proper manner. Regrade all areas disturbed during this process and stabilize against erosion with surfacing materials as indicated on the Drawings.

END OF SECTION 39731

SECTION 02444

CHAIN LINK FENCE BLINDING

PART 1 GENERAL

1.01 SCOPE OF WORK

A. Furnish all labor, materials, equipment and incidentals as necessary for complete installation of a chain link fence blinding. The work covered by this Section shall include installation of a fence blinding as shown on the Drawings and noted for temporary installation.

PART 2 PRODUCTS

2.01 MATERIALS

A. All blinding shall be of a material of sufficient quality and makeup to function as specified herein for the duration of the project. At a minimum, blinding material shall be translucent or opaque, non-biodegradable and of a thickness to resist tears and withstand weather under normal site conditions.

PART 3 EXECUTION

3.01

A. The Contractor shall install a six foot high blinding attached to the inside face of the perimeter fence fabric. This blinding will function to decrease travel of wind-borne particles and other debris. The Contractor shall maintain blinding throughout the course of the project making repairs as soon as possible. The Contractor shall keep the blinding free of soil, debris and other material that may accumulate on the blinding or near the fence as a result of the action of the blinding. The Contractor shall install all fence blinding according to the manufacturers specification or in a manner consistent with the proper functioning of the blinding as specified herein and agreed upon by the Owner's Representative.

END OF SECTION

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SECTION 02576

PAVEMENT RESURFACING AND CURB INSTALLATION

PART 1 GENERAL

1.01 SCOPE OF WORK

A. Furnish all labor, materials, equipment and incidentals required to replace all permanent pavement and curbing disturbed by the Contractor's operations. "Permanent" pavement and curbing is defined as that which is not to be demolished on otherwise removed as shown on the Drawings.

B. Streets, parking areas or sidewalk pavement damaged or disturbed by the Contractor's operations shall be repaired, replaced, or restored as specified in Article 1.02.

1.02 REFERENCE STANDARDS

A. Determination of applicable standards shall be based upon the jurisdiction or ownership of the disturbed area. DHA controlled or Owner property shall be repaired according to specifications from the Dallas Housing Authority. Properties owned by the City of Dallas such as access streets shall be repaired according to Dallas Public Works Specifications unless otherwise agreed to. The Contractor is required to obtain, if necessary, applicable respective said specifications.

1.03 GUARANTEE

A. All pavement placed shall be maintained by the Contractor for a period of one year. During this period all areas which have settled or are unsatisfactory for traffic shall be refilled and replaced.

END OF SECTION

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SECTION 02901

MISCELLANEOUS WORK AND CLEANUP

PART 1 GENERAL

1.01 SCOPE OF WORK

A. Furnish all labor, materials, equipment and incidentals required to do the miscellaneous work not specified in other Sections but obviously necessary for the proper completion of the work as shown on the Drawings.

B. When applicable the Contractor will perform the work in accordance with other Sections of this Specification. When no applicable specification exists the Contractor shall perform the work in accordance with the best modern practice and/or as directed by the Owner's Representative.

C. The work of this Section includes, but is not limited to, the following:

1. Crossing and relocating existing utilities.
2. Restoring of driveways, fences and curbing.
3. Cleaning up.
4. Incidental work
5. Job photographs.
6. Protection and/or removal and reinstallation of signs, lampposts and mailboxes.
7. Restoration of and replacement of curbing.
8. Protection and bracing of utility poles.
9. Restoring easement and right-of-way.
10. Temporary facilities.

PART 2 PRODUCTS

2.01 MATERIALS

A. Materials required for this Section shall be the same quality of materials that are to be restored. Where possible, the Contractor may re-use existing materials that are removed.

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PART 3 EXECUTION

3.01 CROSSING AND RELOCATING EXISTING UTILITIES

A. This Item includes work required in crossing culverts, water courses, including brooks and drainage ditches, storm drains, gas mains, water mains, electric, telephone, gas and water services and other utilities. This work shall include but is not limited to the following: bracing, hand excavation and backfill (except screened gravel) and any other work required for crossing the utility or obstruction not included for payment in other items of this specification. Notification of Utility Companies shall be as specified in Section 01046.

B. In locations where existing utilities cannot be crossed without interfering with the construction of the work as shown on the Drawings, the Contractor shall remove and relocate the utility as directed by the Owner's Representative or cooperate with the Utility Companies concerned if they relocate their own utility.

C. At pipe crossings and where designated by the Owner's Representative, the Contractor shall furnish and place screened gravel bedding so that the existing utility or pipe is firmly supported for its entire exposed length. The bedding shall extend to the mid-diameter of the pipe crossed. Payment for screened gravel at pipe crossings will be made according to Change Order.

3.02 RESTORING OF DRIVEWAYS AND SIDEWALKS

A. Existing public and private driveways disturbed by the construction shall be replaced. Paved drives shall be repaved to the limits and thickness existing prior to construction. Gravel drives shall be replaced and regraded.

B. Existing public and private sidewalks disturbed by the construction shall be replaced with sidewalks of equal quality and dimension at the Contractor's expense.

3.03 CLEANING UP

A. The Contractor shall remove all construction material, excess excavation, buildings, equipment and other debris remaining on the job as a result of construction operations and shall restore the site of the work to a neat and orderly condition.

3.04 INCIDENTAL WORK

A. Do all incidental work not otherwise specified, but obviously necessary to the proper completion of the Contract as specified and as shown on the Drawings.

3.05 PHOTOGRAPHS OF PROJECT

A. Prior to the excavation in any street, the Contractor shall document existing conditions using construction photographs as detailed in Section 01380.

B. The photographs shall be retained in a secure location by the Contractor throughout the duration of the project and shall then be turned over to the Owner.

3.06 RESTORATION AND REPLACEMENT OF SIGNS, LAMP POSTS AND MAILBOXES

A. Existing signs, lampposts and mailboxes outside of the limits of work which may be damaged by the Contractor or removed by the Contractor during the work shall be reinstalled in a vertical position at the same location from which they were removed. Damaged items shall be replaced with an item equal to or better than the damaged items. A concrete anchor shall be provided as necessary, at no additional cost, to ensure a rigid alignment.

3.07 COOPERATION WITH OTHER CONTRACTORS AND CONNECTION TO WORK BY OTHERS

A. At several locations, construction on other contracts may be carried on during the same period as construction under this Contract. It will be necessary for the Contractor to plan his/her work and cooperate with the other Contractor insofar as connections required to each other's work and to prevent any interference and delay for which he/she shall receive no other compensation than that agreed upon for this Item.

3.08 PROTECTION AND BRACING OF UTILITY POLES

A. The Contractor shall be responsible for making all arrangements with the proper utility companies for the bracing and protection of all utility poles that may be damaged or endangered by the Contractors operations. Work under this item shall include the related removal and reinstallation of guy wires, or support poles whether shown on the Drawings or not.

3.09 RESTORING EASEMENTS AND RIGHT-OF-WAYS

A. The Contractor shall be responsible for all damage to private property due to his operations. He shall protect from injury all walls, fences, cultivated shrubbery and vegetables, fruit trees, pavement, underground facilities, such as water pipe, or other utilities which may be encountered along the route. If removal and replacement are required, it shall be done in a workmanlike manner so that replacement is equivalent to that which existed prior to construction.

3.10 TEMPORARY FACILITIES

A. The Contractor shall furnish, install, maintain and remove all temporary facilities required for construction or called for in the specifications.

END OF SECTION

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SECTION 02930

LOAMING, HYDROSEEDING AND EROSION CONTROL

PART 1 GENERAL

1.01 SCOPE OF WORK

A. Furnish all labor, materials, equipment and incidentals required, provide erosion control and place topsoil, finish grade, apply lime and fertilizer, hydraulically apply seed and mulch and water and maintain all seeded areas as shown on the Drawings and as specified herein, including all areas disturbed by the Contractor.

1.02 RELATED WORK

A. Site preparation including clearing, grubbing and stripping is included in Section 02100.

B. Removal of sidewalks and other site improvements as well as backfilling and compaction is included in Section 02200 and Section 02222.

1.03 SUBMITTALS

A. Samples of all materials shall be submitted for inspection and acceptance upon Owner Representative's request.

PART 2 PRODUCTS

2.01 MATERIALS

A. Top soil and fill material will be obtained from the DHA stockpile area located between Kingbridge and Applegrove Streets.

B. Fertilizer shall be commercial mixed free flowing granules or pelleted fertilizer, 10-20-10 (N-P2O5-K2O) grade for lawn and naturalized areas. Fertilizer shall be delivered to the site in original unopened containers each showing the manufacturer's guaranteed analysis conforming to applicable state fertilizer laws. At least 40 percent of the nitrogen in the fertilizer used shall be in slowly available (organic) form.

C. Seed shall be labeled in accordance with USDA Rules and Regulations under the Federal Seed Act and applicable State seed laws. Seed shall be furnished in sealed bags or containers bearing the date of the last germination, which date shall be within a period of 6 months prior to commencement of planting operations. Seed shall be from same or previous year's crop. Seed shall have a purity of not less than 85 percent, a percentage of germination not less than 90 percent, shall have a weed content of not more than 1 percent and contain no noxious weeds. The seed used throughout the project area is Common Bermuda Grass Seed.

D. Seed shall be delivered in sealed containers bearing the dealer's guaranteed analysis.

E. Mulch shall be a specially processed cellulose fiber containing no growth or germination-inhibiting factors. It shall be manufactured in such a manner that after addition and agitation in slurry tanks with water, the fibers in the material become uniformly suspended to form a homogeneous slurry. When sprayed on the ground, the material shall allow absorption and percolation of moisture. Each package of the cellulose fiber shall be marked by the manufacturer to show the air dry weight content and not contain in excess of 10 percent moisture.

PART 3 EXECUTION

3.01 APPLICATION

A. Unless otherwise shown on the Drawings, topsoil shall be placed to a minimum compacted depth of 6-in on all excavated areas of the site. In excavated areas where the depth of excavation exceeds 6-inches, the Contractor shall place common fill until 6-inch depth is reached. Topsoil will then be required to complete the fill.

B. For all areas to be seeded:

1. Fertilizer (10-20-10) shall be applied at the rate of thirty pounds per 1,000 square feet or as determined by the soil test.

2. Seed shall be applied at the rate of five pounds per 1,000 square feet.

3. Fiber mulch shall be applied at the rate of forty pounds per 1,000 square feet.

C. After the topsoil is placed and before it is raked to true lines and rolled, limestone shall be spread evenly over the loam surface and thoroughly incorporated by heavy raking to at least one half the depth of topsoil.

D. The application of fertilizer may be performed hydraulically in one operation with hydroseeding and fiber mulching. The Contractor is responsible for cleaning all structures and paved areas of unwanted deposits of the hydroseeded mixture.

3.02 INSTALLATION

A. Previously established grades in areas not affected by final grade design, as shown on Drawings, shall be maintained in a true and even condition.

B. Subgrade shall be prepared by tilling prior to placement of topsoil to obtain a more satisfactory bond between the two layers. Tillage operations shall be across the slope. Tillage shall not take place on slopes steeper than 2 horizontal to 1 vertical or where tillage equipment cannot be operated. Tillage shall be accomplished by disking or harrowing to a depth of 9-in parallel to contours. Tillage shall not be performed when the subgrade is frozen, excessively wet, extremely dry or in other conditions which would not permit tillage. The subgrade shall be raked and all rubbish, sticks, roots and stones larger than 2-in shall be removed. Subgrade surfaces shall be raked or otherwise loosened immediately prior to being covered with loam.

C. Topsoil shall be placed over approved areas to a depth sufficiently greater than required so that after natural settlement and light rolling, the complete work will conform to the lines, grades and elevations indicated. No loam shall be spread in water or while frozen or muddy.

D. After topsoil has been spread, it shall be carefully prepared by scarifying or harrowing, and mechanically raking. All stiff clods, lumps, roots, litter and other foreign material shall be removed from the loamed area and disposed of by the Contractor. The areas shall also be free of smaller stones, in excessive quantities, as determine by the Owner's Representative. During the raking, all depressions caused by settlement shall be filled with additional loam and the surface shall be regraded until a smooth and even finished grade is created.

E. Seeding, mulching and conditioning shall only be performed during those periods within the seasons which are normal for such work as determined by the weather and locally accepted practice, as approved by the Owner's Representative. The Contractor shall hydroseed only on a calm day, to control proper application and prevent excessive dust.

F. Schedules for seeding and fertilizing must be submitted to the Owner's Representative for approval prior to the work. Seeding as specified herein shall be accomplished between the period of March 15 to June 1 or August 15 to October 1. Seeding during the period from October 2 to March 14 shall only be undertaken upon approval of the Owner's Representative. Seeding during the period from June 1 to August 14 shall only be performed if irrigation is provided.

G. Seeding shall be done within ten days following soil preparation. Seed shall be applied hydraulically at the rates and percentages indicated. The spraying equipment and mixture shall be so designed that when the mixture is sprayed over an area, the grass seed and mulch shall be equal in quantity to the specified rates. Prior to the start of work, the Contractor shall furnish the Owner's Representative with a certified statement as to the number of pounds of materials to be used per 100 gallons of water. This statement shall also specify the number of square feet of seeding that can be covered with the quantity of solution in the Contractor's hydroseeder. Upon completion of seeding operations, the Contractor shall furnish the Owner's Representative with a certified statement on the actual quantity of solution applied.

H. In order to prevent unnecessary erosion of newly topsoiled and graded slopes and unnecessary siltation of drainageways, the Contractor shall carry out seeding and mulching as soon as he has satisfactorily completed a unit or portion of the project. For the purpose of this project a unit is defined as 10,000 square feet. When protection of newly loamed and graded areas is necessary at a time which is outside of the normal seeding season, the Contractor shall protect those areas by what ever means necessary as approved by the Owner's Representative and shall be responsible for prevention of siltation in the areas beyond the limit of work.

I. When newly graded subgrade areas cannot be topsoiled and seeded because of season or weather conditions and will remain exposed for more than 30 days, the Contractor shall protect those areas against erosion and washouts by whatever means necessary such as straw applied with a tar tack, wood chips or by other

measures as approved by the Owner's Representative. Prior to application of topsoil, any such materials applied for erosion control shall be thoroughly incorporated into the subgrade by disking. Fertilizer shall be applied prior to spreading of topsoil.

J. On slopes, the Contractor shall provide against washouts by an approved method. Any washout which occurs shall be regraded and reseeded at the Contractor's expense until a good sod is established.

3.03 MAINTENANCE, AND PROVISIONAL ACCEPTANCE

A. The Contractor shall keep all seeded areas watered, lawn areas mowed and in good condition, reseeding all seeded areas if and when necessary until a good, healthy, uniform growth is established over the entire area seeded and shall maintain all seeded areas in an approved condition until provisional acceptance.

B. The Owner's Representative will inspect all work for provisional acceptance at the end of the ten week maintenance period, upon the written request of the Contractor received at least ten days before the anticipated date of inspection. The maintenance period must occur during the growing season between March 15 and October 1 and shall include a minimum of three mowings.

C. A satisfactory stand will be defined as a section of turf of 10,000 square feet or larger that has:

1. No bare spots larger than three square feet.

2. No more than ten percent of total area with bare spots larger than one square foot.

3. Not more than fifteen percent of total area with bare spots larger than 6-in square.

D. After the inspection has occurred but prior to provisional acceptance, a soil test shall be performed to determine if additional soil fertilization should occur. If necessary, additional fertilizer not to exceed 30 lbs per 1000 sq ft of 20-10-10 shall be applied as directed by the Owner's Representative.

E. The Contractor shall furnish full and complete written instructions for maintenance of the seeded areas to the Owner at the time of provisional acceptance.

F. The inspection by the Owner's Representative will determine whether maintenance shall continue in any area or manner.

G. After all necessary corrective work and clean-up has been completed, and maintenance instructions have been received by the Owner, the Owner's Representative will certify in writing the provisional acceptance of the lawn areas. The Contractor's responsibility for maintenance of lawns, or parts of lawns shall cease on receipt of provisional acceptance.

3.04 GUARANTEE PERIOD AND FINAL ACCEPTANCE

A. All seeded areas shall be guaranteed by the Contractor for not less than one full year from the time of provisional acceptance.

B. At the end of the guarantee period, inspection will be made by the Owner's Representative upon written request submitted by the Contractor at least ten days before the anticipated date. Seeded areas not demonstrating satisfactory stands as outlined above, as determined by the Owner's Representative, shall be renovated, reseeded and maintained meeting all requirements as specified herein.

C. After all necessary corrective work has been completed, the Owner's Representative shall certify in writing the final acceptance of the seeded areas.

END OF SECTION

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Division 13

Special Construction

SECTION 13740

REMOVAL AND DISPOSAL OF TRANSFORMERS, BALLASTS AND TELEPHONE WIRES AND POLES

PART 1 GENERAL

1.01 SCOPE OF WORK

A. This Section specifies requirements for removing, handling, drum containment, transportation and ultimate disposal of all light fixture ballasts, transformers and telephone wires and poles located at the DHA site.

B. The Work of this Section includes obtaining all permits and manifests and notification procedures as required by all local, State, and Federal authorities having jurisdiction over this Work.

C. The DHA will be the generator and will sign all manifests and bills of lading.

D. Ballasts, transformers, mercury vapor lamps, and telephone wires and poles are to be removed. If the Contractor locates any ballasts, transformers, and mercury vapor lamps within all locations of the work shall be removed. If the Contractor locates any ballasts, transformers, and mercury vapor lamps within the buildings, the Contractor shall notify the Owner's Representative prior to removal.

E. The Contractor shall be responsible to identify, remove, and properly dispose of all ballasts, transformers, mercury vapor lamps and telephone poles and wires from the site, whether specifically shown on the Drawings or not at the unit prices established for this Section.

F. The Contractor shall notify the Owner regarding the removal of any transformers and coordinate the removal schedule with the Owner and Owner's Representative. The Contractor shall be responsible for all costs associated with coordinating the removal of any transformers.

G. The Contractor shall notify all residents a minimum of 48 hours prior to discontinuance of service.

H. The Contractor shall prepare the bid based on the information contained herein and observations made during the pre-bid meeting, which includes a walk-through of all sites, areas, and buildings included in the Work.

I. The contractor shall re-route all services to occupied areas.

1.02 RELATED REQUIREMENTS

A. Section 01101 - Safety, Health and Emergency Response Plan. 339743

1.03 SUBMITTALS

A. The Contractor shall submit to the Owner's Representative for review a detailed procedure for the drainage, removal, and disposal of all ballasts, transformers, mercury vapor lamps and telephone wires and poles within 10 Days of the effective date of the contract. The plan shall include:

1. Step-by-step description of the procedure and a time table which shall be implemented for each step;

2. In detail, the required effort and coordination of dates and times of performance, site accessibility, and security;

3. Diagrams on the proposed electrical supply routing for occupied areas.

4. A statement of compliance with all the applicable Federal, state, regional, and local regulations covering such work, along with the name(s) of Subcontractor(s) performing any work including but not limited to, hauler, laboratory, and disposal facility;

5. Copies of permits and licenses required in Paragraph 1.04B; and

6. Evidence of compliance with requirements specified in Article 1.05.

B. The Owner's Representative may require that the Contractor modify the plan in order to provide adequate safety, proper scheduling, and adequate supervision.

C. Work shall not commence until all submittals have been accepted by the Owner's Representative and approved by the Owner.

1.04 REGULATORY REQUIREMENTS

A. The requirements for regulations, permits, and notification of Section 01101 - Safety, Health and Emergency Response shall apply to the Work of this Section.

B. Before commencing Work the Contractor shall notify all agencies, as required by Federal, State, regional, and local authorities, of the Work to be performed. The notifications shall be given in the required number of days in advance of the commencement of Work. Copies of all required permits and licenses shall be obtained and submitted to the Owner's Representative for review. The Contractor shall pay all required fees.

1.05 EXPERIENCE AND QUALIFICATIONS

A. The Contractor performing the Work shall, within 10 Days after the effective date of the Contract, or prior to the start of field work, whichever occurs first, provide written evidence that:

1. The Contractor, as a major part of Contractor's business, has been engaged in Polychlorinated Biphenyls (PCBs) related activities, including the pumping, drainage, flushing, removal, spill clean-up, transportation, service, and storage of high and low concentrations of PCB fluids and solids for a period of not less than five years.

2. The Contractor has all required State and Federal licenses to perform the type of Work described in Article 1.01.

B. The Contractor's personnel shall be, at a minimum, fully qualified personnel who have completed a formal training program in the handling, processing, and safety precautions associated with PCB fluids, and shall also be in full compliance with Health and Safety requirements as stated in Section 01101.

PART 2 PRODUCTS

2.01 GENERAL

A. Provide all drums, overpack drums, storage containers, packing materials, and related products and materials required for collection, storage, and transport of hazardous materials in compliance with the Texas Natural Resource Conservation Commission (TNRCC), EPA and U.S. Department of Transportation (DOT) requirements. All drums shall meet the requirements of DOT 49 Code of Federal Regulations (CFR) 173.

B. Provide all equipment and containers necessary to collect, sample, drain, flush, handle, remove, transport, and dispose of all contents of the transformers.

C. Provide all materials, products, and equipment necessary to bulk, shred, sort, crush, dilute, or otherwise prepare ballasts, transformers, mercury vapor lamps and telephone poles and wires for disposal at the approved disposal facility.

D. Provide all materials for temporary containment areas including berms, containment pans, impervious barriers and absorbent materials.

E. Provide all employees with personal protective equipment, and protective clothing consistent with the levels of protection for each type of Work as indicated in the approved Safety, Health and Emergency Response Plan.

F. The Contractor shall provide a portable certified scale for weighing ballast mercury vapor lamps and transformers, including the weight of the containing drum complete with cover and locking band.

PART 3 EXECUTION

3.01 REGULATIONS

A. The use and disposal of ballasts and transformers containing PCBs is highly regulated and compliance to all requirements set forth by authorities having jurisdiction is an essential condition of this Contract. The Contractor shall be fully aware of all such requirements, ensure that all required permits are obtained and in place (including those required of any subcontractor), prepare all manifests and certifications, and deliver all copies of completed manifests and final certifications and certifications of destruction to the Owner's Representative in the form of one complete tracking document.

B. The following regulations are cited for the information and guidance of the Contractor. The list below is not all inclusive; the Contractor shall be responsible for a thorough knowledge and full implementation of all requirements for PCB removal, transport, and disposal.

1. U.S. Environmental Protection Agency 40 CFR Part 761.

2. Texas Administrative Code 31, CH 335.

3. U.S. Department of Transportation (DOT) Title 49, Code of Federal Regulations (CFR) Parts 100-177 and Parts 350-399.

4. Federal Occupational Safety and Health Administration (OSHA) Title 29, CFR 1910.

5. National Electric Code (NEC) Articles 450-23, 450-24, 450-25, 450-28.

3.02 REMOVAL OF BALLASTS AND MERCURY VAPOR LAMPS

A. All light fixture ballasts and mercury vapor lamps shall be removed using appropriate techniques and personal protection gear as detailed in the submittals.

B. Prior to removal of any ballasts and mercury vapor lamps, the Contractor shall uncover and inspect the label on the ballast and mercury vapor lamps. All ballasts and mercury vapor lamps designated as "No PCBs" shall be marked with green paint; all other ballasts and mercury vapor lamps shall be assumed to contain PCBs and shall be marked with red paint. Similar color coding shall be used for the receiving drums.

C. Removal shall be performed using approved methods and tools that will minimize damage to the light fixtures and ensure a quick, neat removal with the ballast intact and undamaged.

D. Once removed, the ballasts and mercury vapor lamps shall be placed in color coded 55-gallon drums.

E. Once filled, the 55-gallon drums shall be closed and properly labeled for transport and disposal.

3.03 REMOVAL OF TRANSFORMERS

A. All transformers shall be handled with appropriate personal protective equipment.

B. Prepare each transformer to be electrically disconnected in compliance with the National Electrical Safety Code, the National Electric Code, and OSHA regulations.

C. Transformers labeled "dry type" shall be handled and disposed of in compliance with state regulations.

D. Transformers labeled "No PCBs" shall be drained, if necessary, and shall be marked with green paint. The fluid shall be placed in drums painted green, and be sampled and analyzed by the Contractor, as required for transportation and disposal purposes.

E. Each transformer not positively identified as containing "No PCBs" shall be sampled in place to determine the concentration of PCBs prior to any removal activities, as required for transportation and disposal purposes.

F. Before sampling transformers, the Contractor shall take the following preparatory and precautionary measures. These measures shall remain in effect for the duration of the transformer sampling and removal process.

1. Cover and seal all drains, manholes, and other openings that may lead to waterways in such a manner to prevent any migration of the contaminants.

2. Provide temporary containment designed to contain the entire contents of the fluid to be removed. This containment shall encompass the transformer, and any areas designated for temporary storage. In addition, absorbents, in the amounts adequate to absorb a spill from one complete equipment failure, shall be placed within the containment area.

3. Provide adequate spill cleanup equipment within the containment area.

G. The laboratory proposed by the Contractor shall be certified for such analyses and shall be capable of demonstrating skill and experience in similar projects. The laboratory shall forward copies of all reports and technical correspondence directly to the Owner's Representative. All reports shall completely and positively identify each transformer sampled.

H. Based on the analytical results, the transformers shall be marked with paint as follows:

Green - No PCBs

Red - Containing PCBs

I. Transformers shall then be ready to be removed and transported to the applicable disposal facility.

3.04 REMOVAL OF TELEPHONE WIRES AND POLES

A. All telephone wires and poles shall be removed using appropriate techniques to minimize dust and interference with work at the site.

B. All poles shall be removed and placed in such a manner as to not interfere with roadway access traffic.

C. All poles and wires shall be disposed together and in accordance with the disposal requirements of Section 13763.

3.05 STORAGE AND MATERIALS

A. Ballasts, transformers and mercury vapor lamps once removed, shall be stored on-site for no more than 30 days. Drums containing PCB fluid shall be stored on-site for no more than 30 days. At the conclusion of each day's work all drums containing the PCB materials shall be stored in designated secure locations.

B. All drums shall be stored and loaded from secure areas that are impervious and contained. At a minimum, the area shall be lined with 6-mil high density polyethylene (HDPE) overlaid with absorbent paper.

3.06 DECONTAMINATION PROCEDURES

A. Upon completion of the removal of the ballasts, transformers and mercury vapor lamps, all hoses, pumps, drip pans, tools, and any other equipment used, shall be decontaminated and properly secured in accordance with all applicable EPA regulations and procedures. The decontamination area shall be lined with 6-mil HDPE and appropriately bermed to contain any potential spills. The HDPE shall be covered with absorbent paper.

B. Any contamination of the exterior surfaces of equipment which may contaminate the work area shall be cleaned and neutralized prior to moving the equipment. All other surfaces contaminated by PCB fluids or articles in the course of the work, or as a result of spills or leakage, shall be thoroughly scrubbed using a combination of absorbents, solvents, and cleaners.

C. The Contractor shall provide, at Contractor's expense, all necessary wipe test samples in response to spills or leakage. All testing services shall be performed by a laboratory qualified in PCB analyses. Test methods shall meet EPA test method 8080.

D. All hazardous materials generated from work activities, decontamination, and clean up operations shall be placed in EPA specified containers. This shall include all fluids and contaminated solids such as absorbents, rags, disposable protective clothing, soils,and any other incidentals.

E. All drums and article containers used shall be properly sealed, marked, labeled, and dated.

3.07 TRANSPORT OF MATERIALS

A. All haulers shall be properly licensed to transport PCB materials in Texas and all other states traversed in transporting the ballasts, transformers and mercury vapor lamps to approved disposal sites. Haulers shall be under the direct control of the Contractor at all times. Any spills during transport shall remain the responsibility of the Contractor. Any damage or costs incurred as result of a spill and the required cleanup process shall be borne by the Contractor.

B. Provide drip pans or containments required for transport, and dispose of these at an EPA approved incinerator.

C. Transport all PCB materials under proper manifests as required.

D. Vehicles used for the transportation of PCB items shall be plainly marked as required by the DOT.

E. The Contractor shall be responsible for preparing all manifests and other required shipping documents.

F. The Contractor shall weigh drums on site using a certified portable scale.

G. All drums and equipment carcasses shall be secured to the transport vehicle to prevent movement during transport.

3.08 DISPOSAL REQUIREMENTS

A. All drums containing PCB fluids, ballasts, transformers and mercury vapor lamps shall be transported to legally permitted servicing storage facilities or EPA-approved disposal facility. If servicing storage facilities are utilized, the date of arrival shall be documented, and the transfer to an EPA-approved disposal facility shall occur within the first 9 months in the EPA allowed one year "Storage for Disposal" allotment period. The Contractor shall be liable for all penalties associated with tardiness in delivering PCB wastes to an approved disposal facility.

B. Drums containing PCB fluids, ballasts and transformers that are marked red, and PCB contaminated decontamination materials shall be incinerated at an EPA-approved incinerator.

C. Drums containing "no PCB" fluids ballasts and transformers that are marked green shall be disposed of at a legally permitted disposal facility.

D. PCB-contaminated transformer carcasses shall be taken to a state and federally regulated PCB service facility where they shall be disposed of as follows:

1. Each carcass shall be drained of residual PCB liquid, solvent rinsed, and stripped of all non-metallic solids. Cleaning of the carcass shall be continued until PCBs levels are less than 10 mg per 100 square centimeters, to be verified by wipe tests and PCB analyses.

2. The residual PCB liquid and solvent rinse fluid shall be collected, drummed, and incinerated at an EPA-approved incinerator.

3. The cleaned equipment carcasses shall be smelted to complete destruction at an EPA-approved processing facility. Landfilling of any components is not permitted.

E. Transformer carcasses that are marked green shall be thoroughly rinsed clean of all dielectric fluids and disposed of at a legally permitted disposal facility. All wash water should be collected into drums, sealed, transported, and disposed of in accordance with all applicable rules and regulations.

F. Placing PCB fluid, PCB ballasts, or PCB transformer carcasses in landfills is not permissible.

3.09 FINAL CERTIFICATIONS

A. Upon completion of the destruction of PCB fluid, ballasts, capacitors, transformers, and PCB-contaminated items, the Contractor shall provide:

1. Written certification from the disposal facility that the items being disposed of were delivered to, accepted, and destroyed by the disposal facility. Certificate shall be signed by the person authorized by the disposal facility to accept PCB items for disposal.

2. Copies of all manifests including all manifests associated with any remanifesting procedures during storage and handling.

3. Certificates of Destruction of Materials.

B. The documentation shall include the make, serial number, and year of manufacture of the transformers, their location and description, the location of the incinerator, and the quantity of disposed PCBs. Documentation shall satisfy EPA regulations with reference to recordkeeping.

END OF SECTION

SECTION 13763

HANDLING, LOADING, TRANSPORTATION AND DISPOSAL OF BUILDING DEMOLITION DEBRIS

PART 1 GENERAL

1.01 SCOPE OF WORK

A. This Section specifies requirements for handling and disposal of building demolition debris and other site improvements. The work also includes removing, loading, and transporting and disposal of other demolition debris generated as part of this Work.

B. The DHA will be the generator and will sign all manifests and bills of lading.

C. The work of this section includes all demolitions and other debris from the locations shown on the Drawings and specified herein. The building demolitions include one and two story apartment style buildings. Other debris include trees and shrubs which are adjacent to buildings or other structures to be demolished. Other demolition items include sidewalks, parking areas, concrete meter boxes, playground areas and any other site improvements. Quantities of demolition debris and yard wastes are quantities measured in-place. The Contractor shall confirm the quantities of all demolition waste generated.

Demolition	In-Place Volume (cy)	Transport/Disposal Volume (cy)
129 one and two story buildings	75,000	150,000
Other demolition wastes	5,000	10,000

D. The Contractor is responsible for verifying quantities. Quantities given herein are given only as a guideline.

E. The following is a list and count of the types of buildings that exist on site:

Building Type	Number of Buildings
One Story Building (Type 1)	28
Two Story Buildings (Type 2)	93
Combination One and Two Story Buildings (Type 3)	8

It is the responsibility of the Contractor to verify these numbers. They are provided here only as an estimate.

F. All building demolition debris shall be disposed at the landfill facility approved by the Owner. Under no circumstances shall any material be salvaged by the Contractor unless prior written authorization has been obtained from the Owner and/or Owner's Representative.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Section 02060 - Demolition.

B. Section 02100 - Site Preparation

C. Section 02222 - Backfill and Compaction

D. Section 01101 - Safety, Health and Emergency Response Plan

1.03 SUBMITTALS

A. Submit to the Owner's Representative for review and acceptance by the Owner, as a single submittal, all pertinent information relating to the transport, stockpiling, and disposal of materials specified herein, within 10 days after the effective date of the Contract. The information submitted shall include, as a minimum:

1. Name and address of all demolition debris transporters.

2. United States Environmental Protection Agency (EPA) Identification Number and expiration dates (if applicable).

3. Proof of permit, license, or authorization to transport demolition debris in all affected states.

4. Weight scale information described in Article 3.06.

B. Within 10 days of the effective date of the agreement, submit to the Owner's Representative, for review and acceptance, a schedule detailing the proposed sequence of operations to perform the Work specified herein.

1.04 REGULATORY REQUIREMENTS

A. The requirements for regulations, permits and notification of Section 01101 Safety Health and Emergency Response Plan shall apply to the Work of this Section.

B. The Work of this Section shall be performed in accordance with all applicable Federal, State, and local regulations, laws, codes, and ordinances governing the handling, transportation, and disposal of demolition debris.

C. Obtain all local, State, and Federal permits required for the transport and disposal of demolition debris.

D. The Contractor shall document that the landfills proposed have all certifications and permits as required by local, State, and Federal regulatory agencies to receive and dispose of the debris.

PART 2 PRODUCTS

2.01 GENERAL

A. All contractor personnel shall wear personal protective equipment and protective clothing consistent with the levels of protection for this work as indicated in the Safety, Health and Emergency Response Plan, Section 01101.

PART 3 EXECUTION

3.01 RESPONSIBILITIES OF THE CONTRACTOR

A. The responsibilities of Contractor providing loading and transportation and disposal of building materials and demolition rubble will include, but are not necessarily limited to the following:

1. Provide, deliver, and remove from the site, at the locations coordinated with the Contractor, nominal 20 cubic yard truck-mounted containers. Containers will remain mounted on trucks at all times even during loading of rubble.

2. Provide enough trucks and containers per day, distributed over the course of the work day.

3. Cover all containers after material has been loaded.

4. React to any significant change in Contractor's container requirement schedule, within 1 week of written notification of change submitted with the Contractor's weekly update of the schedule.

5. Provide an on-site coordinator for the duration of the project. Duties of the on-site coordinator will include: the procedures for installing the cover over the containers; handling all paperwork and placards for transportation and disposal of building materials and demolition rubble; and coordinating the supply and handling of containers with the Contractor.

6. Provide a schedule of the number of containers required for each week of the project, within the limits of availability stated above, in order to perform the work according to the Contractor's proposed demolition schedule. The schedule of required containers shall be updated by the Contractor weekly.

7. Coordinate development of layout of temporary facilities with others providing transportation and disposal to accommodate their trucks and containers. The Contractor shall be responsible for providing access for truck traffic to and from loading areas. The locations of on site haul roads for truck access shall be coordinated with those responsible for transportation and disposal.

8. Load containers with all building materials and demolition rubble. There are no maximum length or width restrictions on material placed in the containers, provided containers can be properly covered. The Contractor

shall use reasonable care when loading containers to ensure containers are not damaged.

9. Load each container to a minimum of 18 tons and/or to the maximum legal load weight allowable. At end of project, and at other key times, the Owner's Representative may approve loading of a container to less than 18 tons, provided the Contractor has made a good faith effort to meet these requirements, and material distribution makes it impossible to meet the minimum weight requirement. The Contractor shall furnish an on-site state certified truck scale with a readout, approved by the Owner, which shall be the basis for determining compliance with the specified weight requirements.

10. Coordinate the day to day delivery and removal of containers and truck traffic.

11. All trucks and containers that are loaded and not in route to the landfill shall be parked on site.

B. The Contractor is responsible for all costs associated with loading, transportation and disposal of building demo debris and miscellaneous debris.

3.02 HANDLING OF BUILDING MATERIALS AND RUBBLE

A. Handling, processing, stockpiling, and loading of rubble shall be in accordance with the Contractor's approved Transportation Plan and Safety, Health and Emergency Response Plan.

B. Dust control measures shall be employed, as required by the approved Demolition Plan, to minimize the generation of dust within the limits shown on the Drawings.

3.03 LOADING

A. Furnish, install, and maintain any temporary loading facilities required for the completion of demolition removal activities. The location and design of all facilities must be included in the Transportation Plan, coordinated with others providing transportation and disposal, and be approved by the Owner's Representative.

B. Provide the equipment, personnel, and facilities necessary to handle, package, and load demolition debris.

C. Ensure that all operations in the loading of demolition debris are in compliance with the appropriate local, State, and Federal DOT regulations.

D. All vehicles hauling demolition debris from the site shall be inspected by the Contractor prior to leaving the site. Containers shall be properly covered, to prevent any loss of material.

E. All vehicles leaving the site shall be inspected by the Contractor to ensure that no excess dust is present and no soil or material is adhered to its wheels or undercarriage. All excess dust, soil, and any waste material that is visible shall be removed by the Contractor.

3.04 TRANSPORT

A. Perform vehicle cleaning and inspection, as required, before leaving the site.

B. Be responsible for coordinating loading and hauling with site work schedules and delivery of containers by others.

C. Coordinate vehicle inspection and recording of quantities leaving the site with the Owner's Representative and others responsible for transportation and disposal.

D. The Contractor shall not transport material off-site until all landfill facility approvals have been received and reviewed by the Owner's Representative.

E. The Contractor shall transport material from the site to the landfill facilities in accordance with all United States Department of Transportation (DOT), EPA, TNRCC, and other applicable regulations.

F. The hauler(s) shall be licensed in all states affected by transport.

G. The Contractor shall be responsible for ensuring that free-liquid does not develop during transport of materials.

3.05 LANDFILL

A. The Contractor shall transport materials to landfills that are specified by the Owner.

1. The Owner's Representative shall designate one landfill as the primary facility and the other as the alternate facility should Project conditions require the use of a back-up facility. The Owner will not incur any additional costs if an alternate facility is utilized.

3.06 WEIGHT MEASUREMENT

A. The Contractor shall furnish and install a Texas certified scale or a comparable scale with an accuracy within 2% of the Texas certified scale as close to the Contract limits of Work as possible for the period necessary to transport the demolition debris.

B. If a Texas certified scale is utilized, the scale shall be equipped with a digital monitor and printer. The Contractor shall furnish weight slips in sufficient quantity for use with the digital printer.

C. If this scale is not located within the Contract limits of Work, the Contractor shall submit the name and location of the facility where the scale is located. The Contractor shall also submit a plan to the Owner's Representative for review outlining procedures on controlling trucks leaving the work site and on-route to the off-site scale.

D. If a comparable scale is proposed, the Contractor shall submit technical information on the operation, accuracy, and calibration procedure of the proposed scale to the Owner's Representative for review.

E. The Contractor shall remove the scale at the completion of the Project, if installed within Contract limits of Work.

F. The Contractor shall operate the scale and allow inspection by the Owner's Representative or the Owner. The tare and gross weight for every vehicle, container and trailer shall be measured to determine the net weight for use in validating new weights recorded at the landfills.

G. The Contractor shall also provide certified tare and gross weight slips for each load received at the accepted facility which shall be attached to each returned manifest.

3.07 WASTE PROFILES, BILL OF LADING, AND MANIFESTS

A. The Contractor shall be responsible for preparing all waste classifications, profile applications and questionnaires and for all coordination with disposal facilities and all Federal and State Environmental Agencies following review by the Owner's Representative.

B. The Contractor shall be responsible for preparing all bills of lading and manifests with all applicable analytical backup, notification, and control forms. The Contractor shall be responsible for coordination with the landfills and all Federal and State Environmental Agencies.

C. The Contractor shall also provide certified tare and gross weight slips for each load received at the designated facility which shall be attached to each returned manifest.

D. Owner will be designated as generator, and will sign all bills of lading, manifests and waste profile applications or questionnaires.

E. The Contractor shall furnish all generator copies of the manifests to the Owner's Representative for submittal to the appropriate State Environmental Agencies and to retain a copy for the Owner records.

F. The Contractor shall submit to the Owner's Representative, prior to receiving final payment, documentation certifying that all materials were transported to, accepted, and disposed of, at the selected landfills. The documentation shall include the following, as a minimum.

1. Documentation shall be provided for each load from the site to the landfill including all manifests and any other transfer documentation as applicable.

2. All documentation for each load shall be tracked by the original manifest document number that was assigned by the Owner's Representative at the site.

3. Each load shall be video-taped, with the date and time shown on the tape. The manifest number for each load shall be added verbally on the audio portion of the tape. The Contractor shall also provide and pay for survey records documenting the location of the loads within the landfill. Video-cassettes and survey records will be given to the Owner's Representative on a monthly basis.

3.08 DISPOSAL

A. Dispose of demolition debris at DHA-approved landfills in accordance with all Federal, State, and local regulations.

B. The Contractor shall provide to the Owner's Representative copies of all weight slips, both tare and gross, for every load weighed and disposed of at the accepted landfills facilities. The slips shall be tracked by the original manifest document number that was assigned by the Owner's Representative at the site. The Owner's Representative shall only make progress payments upon receipt of these weight slips.

END OF SECTION

SECTION 13770

DECONTAMINATION FACILITY, COLLECTION, TRANSPORTATION AND DISPOSAL OF DECONTAMINATION WATER

PART 1 GENERAL

1.01 SCOPE OF WORK

A. Furnish all labor, materials, equipment and incidentals for a decontamination area as shown on the Drawings and specified herein.

B. Furnish all labor, materials, equipment, and incidentals required to collect and dispose of washwater, and materials generated by on-site decontamination activities or other site work. The Owner may perform sampling and testing of these materials for documentation purposes only.

1.02 SUBMITTALS

A. Develop and submit for review, a detailed program for collecting, handling, transporting, and disposing of decontamination water.

PART 2 PRODUCTS

2.01 GENERAL

A. Provide all employees of the Contractor and the Subcontractor(s) with personal protective equipment and protective clothing consistent with the levels of protection for this work as indicated in the Safety, Health and Emergency Response Plan - Section 01101.

2.02 STORAGE OF MATERIALS

A. Stockpile labels shall be of 6-inch by 12-inch weather proof material, such as plastic, affixed to 1 x 3 wood straps, 3 feet long. The labels shall be clearly marked with indelible ink marker. Markings shall be as agreed upon between Owner's Representative and Contractor.

B. All sheeting required for storage of stockpile materials and soils shall be 40-mil polyethylene and covered with 20-mil polyethylene sheeting. All polyethylene sheeting shall be UV resistant (black).

PART 3 EXECUTION

3.01 EQUIPMENT AND VEHICLE DECONTAMINATION FACILITY AND COLLECTION

A. The Contractor shall design and construct a decontamination area. The decontamination area shall be used to decontaminate equipment and vehicles used

to transport building demolition debris. The decontamination area is for the purpose of site housekeeping and to minimize the potential for mud or silt to leave the site.

B. The Contractor shall be responsible for the maintenance and operation of the decontamination throughout the duration of the work activities. The Contractor shall collect all wash water resulting from the decontamination process and shall convey this water for disposal through the City of Dallas POTW, stormwater system or an approved disposal facility, provided that all permits, waste classification codes or other Federal, state and local regulations are met.

C. Wash down equipment shall, as a minimum, include both a high pressure water and steam system. The Contractor shall provide this equipment. Power required to generate steam and high pressure water (greater than 90 psi) shall be the responsibility of the Contractor.

END OF SECTION

39759

Appendix A

Workplan for Building Demolition Project
Edgar Ward Place
Dallas Housing Authority

JONES & NEUSE

GULF COAST REGION OF RMT INC.

RMT/JONES & NEUSE, INC. — DALLAS, TX
12655 NORTH CENTRAL EXPRESSWAY • SUITE 323 • 75243-1717
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WORKPLAN FOR BUILDING DEMOLITION PROJECT
EDGAR WARD PLACE
DALLAS HOUSING AUTHORITY

DALLAS, TEXAS

DECEMBER 1994

Project Manager

099761

JONES & NEUSE

GULF COAST REGION OF RMT

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Section 1
INTRODUCTION

Edgar Ward Place is part of the Dallas Housing Authority's West Dallas Development (DHA site) located in Dallas, Texas (Figure 1-1). The DHA Site is utilized for public housing and consists of three primary developments: Edgar Ward Place, George Loving Place, and Elmer Scott Place. Edgar Ward Place along with the rest of the DHA site is located within the boundaries of the RSR Corporation as designated by the U.S. Environmental Protection Agency (EPA). The RSR Corporation site along with the DHA property is proposed for addition to the National Priorities List (i.e., Superfund cleanup). The entire DHA site has been designated by the EPA as Operable Unit (OU) 2 of the RSR Corporation site. Cleanup of the RSR contamination on OU 2 is limited to buildings and soil within George Loving Place and does not include any areas within Edgar Ward Place.

The workplan presented herein was developed by RMT/Jones and Neuse, Inc. (RMT/JN) and details the tasks to be performed during the asbestos abatement and building demolition project in Edgar Ward Place. The focus of the workplan is the sampling and monitoring efforts to be performed as part of the demolition project. The demolition process will include: 1) asbestos survey and abatement; 2) development of plans and specifications detailing the demolition process; 3) engineering consulting services during the abatement and demolition (i.e., oversight); 4) surface soil sampling following the demolition; and 5) air sampling and dust monitoring during the demolition. Surface soil sampling, air sampling, and dust monitoring will be conducted by RMT/JN. The asbestos survey and sampling will be conducted by Cole-McDonald Environmental Consulting, Inc. (Cole-McDonald).

Building demolition will be limited to the area of Edgar Ward Place east of Holystone Road as presented in Figure 1-2. A portion of the development between Fishtrap and Goldman Streets and south of Leath Street will not be included in the demolition.

1.1 Site Location

Edgar Ward Place comprises approximately 85 acres in the DHA's West Dallas Development just north of Bickers Street. Edgar Ward Place is bounded by a former channel of the West Fork of the

Trinity River on the west, Hampton Road on the east, Canada Drive and the West Fork of the Trinity River on the north, and Bicker's Street to the south (Figure 1-2).

Edgar Ward Place along with the rest of the DHA site was built in 1952 and consists of housing units and maintenance facilities. There are 132 buildings in this area (east of Holystone Road) three of which have been burned to the ground. The remaining 129 buildings are proposed for demolition and removal of 132 building foundations. A number of the units are in poor condition (i.e., structurally unsound).

According to the City of Dallas, the DHA site is zoned for multi-family apartments. Land use in the general area includes residential, industrial/manufacturing, floodplain, and commercial retail.

1.2 Components of the Demolition Workplan

Since the DHA site is part of the Superfund cleanup, all work performed at the site including that in Edgar Ward Place must adhere to the requirements of the EPA as well as the Administrative Order on Consent (AOC) between the EPA and DHA. These requirements include the development of project plans detailing the activities to be conducted at the site. The project plans include a workplan, sampling and analysis plan (SAP), and health and safety plan (HSP). The SAP includes both a field sampling plan (FSP) and quality assurance project plan (QAPP). The workplan developed for the proposed demolition follows the, "*Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA*" (EPA, 1988).

The workplan describes all activities to be conducted during the demolition process. The workplan is divided into eight sections as detailed below:

- Section 1 - Introduction;
- Section 2 - Site background and setting;
- Section 3 - Initial evaluation;
- Section 4 - Workplan rationale;
- Section 5 - Demolition tasks;
- Section 6 - Project management; and
- Section 7 - References.

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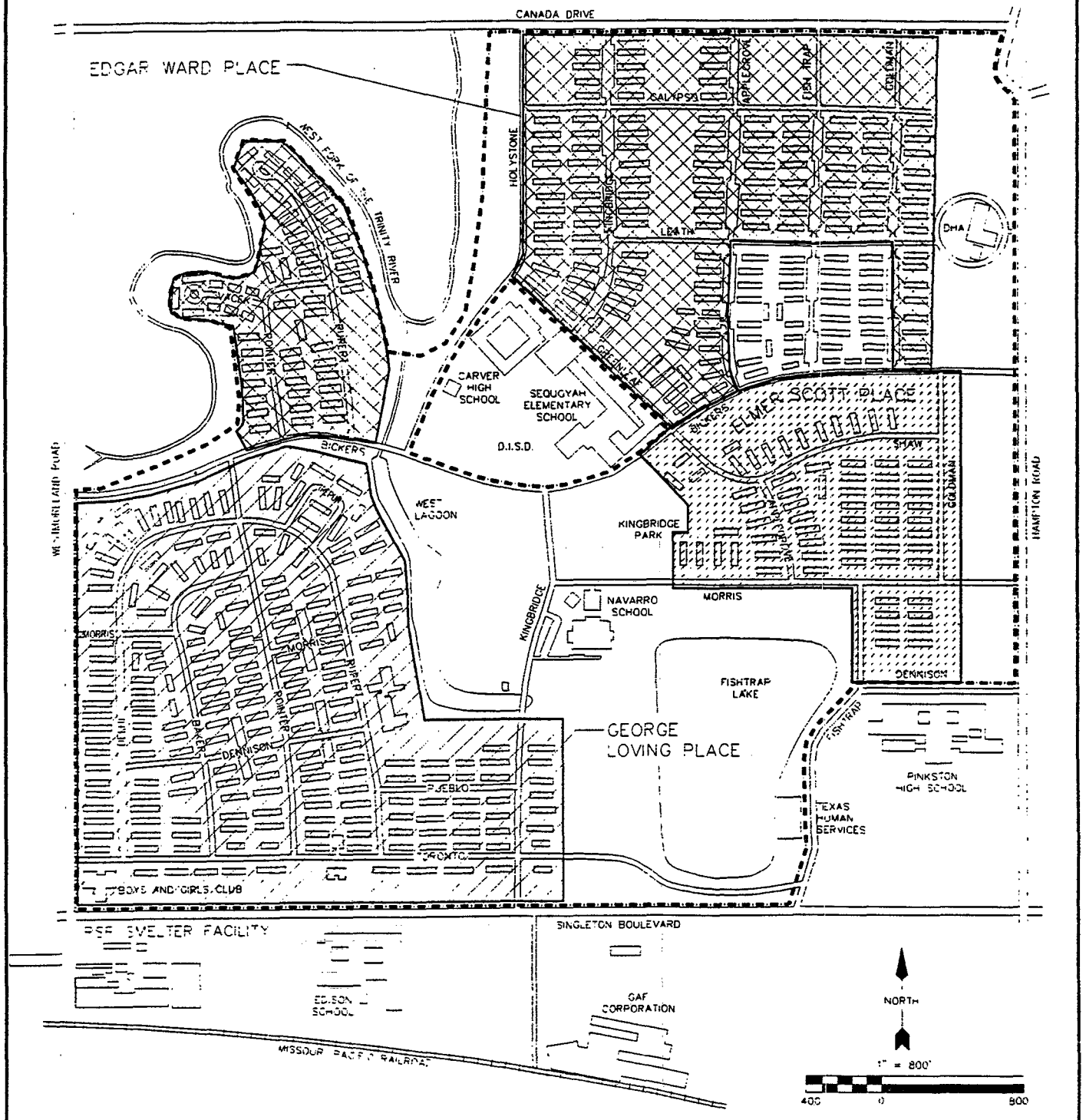
Details of the sampling and analysis procedures to be utilized at Edgar Ward Place are provided in the FSP (Appendix A) and quality assurance/quality control (QA/QC) procedures are provided in the QAPP (Appendix B). The health and safety protocol to be implemented during this project are detailed in the site health and safety plan (HSP) provided in Appendix C.



= PREFERABLE ROUTE

FIGURE 1-1
MAP OF DHA SITE
EDGAR WARD PLACE

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Environmental and Engineering Services

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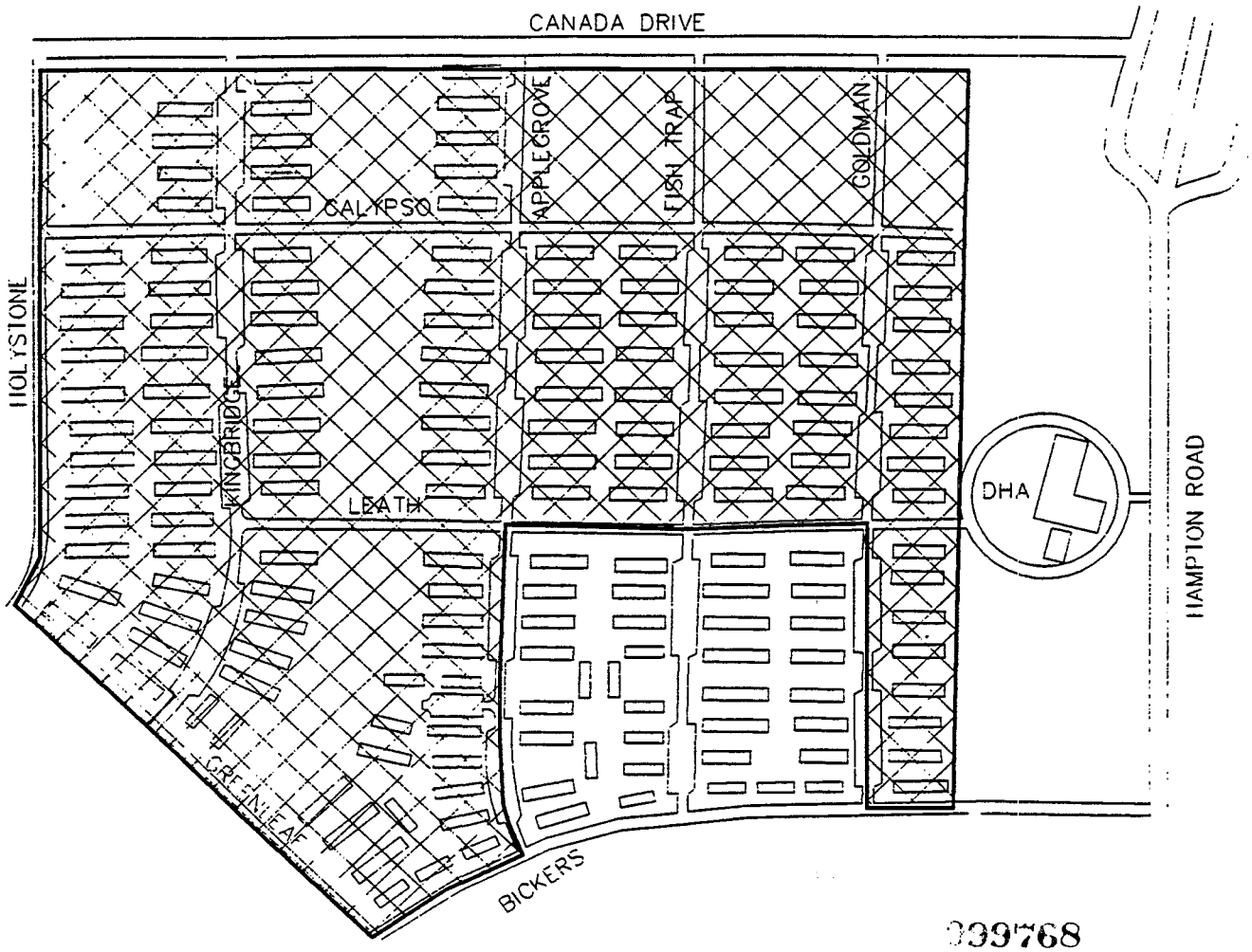

039768

NORTH

Proposed Demolition Area

1" = 300'

400 0 300

FIGURE 1-2
PROPOSED DEMOLITION AREA
DEMOLITION PROJECT
EDGAR WARD PLACE

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Environmental and Engineering Services

Section 2
SITE BACKGROUND AND SETTING

2.1 Site Background

Based on aerial photographs taken between 1942 and 1991, it appears that the area now occupied by Edgar Ward Place was relatively undeveloped prior to 1942. Parts of the DHA site around Fishtrap Lake and former West Lagoon (south of Edgar Ward Place) were used for sand and gravel mining. An increase in the number of private residences occurred on the DHA site between 1942 and 1951. A large portion of the mining excavations noted above had been filled by 1951. Several industrial facilities were developed south of the DHA site along Singleton Boulevard between 1942 and 1951. The 1958 photograph show that the public housing development at the DHA site had been completed and all former sand and gravel excavations filled.

The DHA site is located north of the RSR Corporation facility which was responsible for deposition of lead and arsenic contamination on the soils. The contamination resulted from emissions of particulates into the atmosphere and disposal of smelter wastes (e.g., slag and battery casing chips) as fill material in local neighborhoods. The EPA conducted investigations in the RSR Corporation site in 1982, 1983, and 1991. Investigations have also been conducted at the DHA property (of which the Edgar Ward Development is included) by Camp Dresser & McKee Inc. (CDM) and by RMT/JN to determine the nature and extent and contamination. CDM conducted an investigation of the DHA site in 1991/1992. RMT/JN conducted the remedial investigation (RI) and Feasibility Study (FS) of the DHA site in May/June 1994. Building demolition and soil excavation has been underway at a location south and west of the Edgar Ward site since June 1993. Building and soil sampling has been conducted during the course of oversight activities associated with the site remediation activities. Results of the previous site investigations and sampling are presented in Section 3.0.

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2.2 Physical Setting

A considerable amount of information is currently available regarding the environmental setting of Edgar Ward Place. This information addresses various site physical characteristics that may effect the demolition project: (1) general physical features; (2) soil; (3) surface water hydrology; and (4) meteorology.

General Physical Features

Edgar Ward Place is located south of the Trinity River floodway west of downtown Dallas, Texas (Figure 1-1). Edgar Ward Place has been improved with a number of structures including housing units, administration complexes, and playgrounds. The area surrounding Edgar Ward Place is a mixture of industrial, commercial, and residential properties. Most residential properties are west of this site across Westmoreland and east across Hampton Road. A number of industries such as Dallas Drum, GAF Industries, and the former RSR smelter operate or have operated facilities south of the site along Singleton Boulevard.

The topography of Edgar Ward Place as well as the entire DHA site is very flat (one to two percent slopes). Steeper slopes are present to the south of the site just behind the RSR smelter and along Interstate 30. The highest elevation at the DHA site is approximately 450 feet above mean sea level near the south boundary of the site along Singleton Boulevard and just east of the Boys and Girls Club. From this location, the site slopes to the north/northeast toward a former channel of the West Fork of the Trinity River.

Several Dallas Independent School District (DISD) schools are located in the area. Carver and Sequoyah are located adjacent to Edgar Ward Place along Bickers Avenue. Amelia Earhart school is located to the west across Westmoreland Road. Jose Navarro is located at Kingsbridge Park and Morris Street and Pinkston is located on Dennison and Fishtrap.

Soil

Soil sampling at the DHA site indicated that most of the soils belong to the Houston Black-Urban complex and Trinity-Urban Complex. The Soil Conservation Service (Soil Survey of Dallas County, Coffee et al., 1980) has mapped the DHA site and adjacent properties as Houston Black-Urban complex and Urban land. The U. S. Department of Agriculture textural classification of the soils in this complex is clay loam and clay. A large portion of these soils have been disturbed due to the urban setting, and fill is present in a number of locations.

The Houston Black-Urban land complex and Trinity-Urban complex consists of moderately alkaline, dark gray to black clay soil with low permeabilities. Runoff and erosion hazard are medium. These soils have low strength and are susceptible to cave-in during excavations.

Surface Water Hydrology

The DHA site is part of the state-designated watershed segment 0805 and subwatershed of the Dallas West Bank. The Trinity River and associated floodway are approximately 0.5 miles north of the DHA site. The northwest side of Edgar Ward Place is bordered by a former channel of the West Fork of the Trinity River. A small lake and drainage ditch, Fishtrap Lake and the former West Lagoon are also located on the DHA site south and west of Edgar Ward Place respectively.

Fishtrap Lake serves as water storage/retention pond for local storm water runoff. Fishtrap Lake is a 21.2-acre body of water with a depth of 2 to 6 feet. Five stormwater outlets discharge into the lake. Overflow from Fishtrap Lake, during period of high rainfall, flows through a drainage ditch (the former West Lagoon) and on to the Trinity River via pipes underneath Bickers Street and the west levee pump station (Station D). Fishtrap Lake is currently being studied and renovated to meet the City of Dallas' 100 year frequency storm requirements.

Surface water flow generated from precipitation flows to the streets and associated storm water control structures. Periodic flooding typically occurs due to the low slope and slow permeability (i.e., poor drainage) of the soils in Edgar Ward Place. Additional details of surface water flow along with precipitation data are presented in the Storm Water Pollution Prevention Plan (SWPPP) developed for Edgar Ward Place.

Meteorology

A review of local climatic data (Dallas/Ft. Worth area) from the National Oceanic and Atmospheric Administration (NOAA) was conducted by RMT/JN. This review included monthly data for 1993 as well as the annual summaries for 1962 through 1991. The data collected by the NOAA included temperature, precipitation, and wind speed/direction. According to the NOAA data, the monthly average air temperature in the Dallas/Ft. Worth area in 1993 ranged from a low of 45.1°F in January to a high of 87.5°F in August. Total precipitation for 1993 was 32.8 inches. In 1992, this total was 42.2 inches. The mean precipitation for this area over the last 29 years is 32.5 inches. From 1962 to 1991, the annual precipitation ranged from 20.5 to 53.5 inches. In 1993, the resultant wind direction was from the south (182°) and the average wind speed was 10.0 miles per hour. Prevailing wind direction from 1963 to 1991 was from the south.

Rainfall at the site in 1993 was heaviest in the months of February and October. The total number of rain days (greater than 0.01 inches) in 1993 was 84. The number of rain days was greatest in January (16) and lowest in July (10). Precipitation data is significant to the site in that it will indicate the potential for work stoppages or slowdowns due to poor weather conditions.

Section 3
INITIAL EVALUATION

The initial evaluation of the environmental conditions of Edgar Ward Place is based on data collected from previous investigations and sampling conducted at the DHA site. These investigations have included sampling conducted by the EPA, CDM, RMT/JN, City of Dallas, Texas Natural Resources Conservation Commission (TNRCC), and an asbestos survey of buildings at Edgar Ward Place was conducted by RMT/JN and Cole-McDonald Environmental Consulting, Inc. (Cole-McDonald). An RI was conducted by RMT/JN, but was limited to areas of the DHA site outside of Edgar Ward Place.

In 1991, the EPA conducted environmental investigations at the DHA site. The EPA's investigation included sampling at several high risk (HR) locations, composite samples from a grid consisting of 200 foot by 200-foot blocks, and samples along three transects at the DHA site. CDM conducted a 300 foot by 300 foot grid sampling investigation of the DHA site in the fall of 1991 through the spring of 1992. The City of Dallas has operated air monitoring stations in the proximity of the DHA site to evaluate contamination from lead and particulates. These stations have been in operation since 1983. Cole-McDonald conducted sampling of building materials from units in Edgar Ward Place in November 1994.

Soil "contamination" for purposes of this workplan is based on suggested concentrations of lead and arsenic by the Agency for Toxic Substances and Disease Registry (ATSDR) for the RSR Corporation site. The action levels recommended by the ATSDR for the contaminants of concern identified at the DHA site are as follows:

- Total lead - 500 mg/kg;
- Total arsenic - 20 mg/kg.

The arsenic concentration of 20 mg/kg is for the 0 to 6 inch depth. According to the ASTDR, below six inches, the clean up level could be increased to 50 mg/kg. However, for the Edgar Ward Place project, the arsenic cleanup level will remain at 20 mg/kg.

3.1 EPA Investigations

The EPA performed site investigations of the RSR smelter and surrounding area (RSR Corporation site) as well as the DHA site. The bulk of the EPA's sampling on the DHA site was conducted in 1991 in George Loving Place although several sampling locations were within Edgar Ward Place.

The EPA's soil sampling in Edgar Ward Place included two high risk locations (HR-02 and HR-06) as well as 11 playground locations (identified by the code PEW). Location HR-06 was on the west side of Holystone Road in an area of Edgar Ward Place that will not be a part of the demolition. The playground samples designated as (PEW) were all located in the area of Edgar Ward Place west of Holystone Road and are not part of the demolition area. Sampling point HR-02 was located just south of Leath Street approximately 300 feet east of Kingsbridge Road (open space between apartment units). The grid set up by the EPA over the DHA site consisted of a total of ninety 200 foot by 200 foot sampling blocks (200 foot blocks) which were all located within the DHA site.

Soil samples collected from the HR locations at the DHA site were from 25 foot by 25 foot blocks. Sampling was expanded to adjacent 25 foot by 25 foot blocks in some locations based on initial sampling results. Composite soil samples (consisting of four grab samples) were collected from these locations from the 0 to 1 inch and 0 to 3 inch depths. Soil samples collected by the EPA were analyzed for total lead and arsenic by EPA Method 6010 (inductively coupled plasma or ICP).

RMT/JN's review of the EPA's sampling results from seven sampling blocks indicated that soil concentrations of lead ranged from 59.5 to 224 mg/kg at HR-02. The mean soil lead concentration for the 0 to 1 inch depth was 110.2 mg/kg (not including location HR-02-A because no data was available for the 0 to 3 inch depth). The mean soil lead concentration in the 0 to 3 inch depth interval was 115.5 mg/kg. The high value of 224 mg/kg was identified in the sample from HR-02-E1. Soil arsenic concentration ranged from below the detection limit of 5 mg/kg to 8.20 mg/kg. Cadmium was below the analytical detection limits for all samples tested. The data collected by the EPA indicates that the lead and arsenic concentrations of the soil samples collected from Edgar Ward Place were well below the action levels established by the ATSDR.

3.2 Site Investigation

A site investigation was conducted by CDM for the DHA site in the fall of 1991 through the spring of 1992. Environmental samples were collected and analyzed from surface soils, subsurface soils, and building units (indoor dust) throughout the DHA site as well as areas of Edgar Ward Place. A brief review of this investigation is provided below.

Surface Soil Sampling

A total of 830 composite soil samples were collected at the DHA site along a 300 foot grid (166 sampling locations) and analyzed by x-ray fluorescence (XRF) spectrometry. Of this total, 205 soil samples (41 locations) were in Edgar Ward Place (east of Holystone Road). Prior to analysis, samples were prepared by sieving, grinding, and splitting to optimize XRF results. Soil samples were collected at five depths (0 to 1 inch, 1 to 2 inches, 2 to 6 inches, 6 to 12 inches, and 12 to 18 inches) at each sampling location. Each sampling location consisted of three separate excavations to a depth of approximately two feet. The excavations were separated by a one meter distance to minimize the effect of spatial variability.

Soil samples were analyzed for total lead and arsenic. The XRF equipment was initially calibrated with 10 soils from the DHA site utilizing lead values determined from laboratory analysis (EPA Method 6010). In addition to the calibration samples, a total of 53 split samples were sent to the laboratory for analysis of lead by EPA Method 7421. The correlation coefficient (r) between XRF lead values and that obtained from the laboratory (EPA Method) was 0.95. The data indicated the high quality of the XRF data. The XRF analyzer was also calibrated for arsenic. QA/QC samples were analyzed every 16 samples to ensure equipment calibration.

Review of the XRF data from sampling locations within the proposed demolition area indicated that lead and arsenic were present in the soil. Total soil lead content in the proposed demolition area of Edgar Ward Place ranged from a low of 15 to a high of 164 mg/kg in the 0 to 1 inch depth. The mean soil lead concentration in the 0 to 1 inch depth was 65 mg/kg. Soil lead concentrations were greater than 100 mg/kg at only three locations in the proposed demolition area: PG-09, PG-18, and

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PG-55. These locations are along Hampton Road and may have been impacted by deposition of lead from vehicular emissions. Total arsenic content in the soil ranged from below the analytical detection limit of 5 mg/kg to 17 mg/kg. Total cadmium content of the soil was less than 2 mg/kg in all samples analyzed by the XRF method.

The data from CDM's site investigation were entered into a geostatistical and plotting program (GeoEAS) to develop contours (i.e., isopleths) of various lead concentrations across the entire DHA site. Based on this data, the soil lead concentration in the 0 to 1 inch depth was below 100 mg/kg through the proposed area of demolition in Edgar Ward Place.

Subsurface Soil

Only one of the 11 soil borings (SB-11) drilled at the DHA site during CDM's site investigation was located in Edgar Ward Place. Soil boring SB-11 was located in the area now occupied by the DHA main office.

Although fill was encountered at several locations across the DHA site, no fill was observed in soil boring SB-11. The fill noted at other locations of the DHA site was associated with former sand and gravel pits in areas around Fishtrap Lake and the drainage culvert leading to the West Fork of the Trinity River (former West Lagoon). The fill in most cases included materials such as clothing, glass, wood, metal, and bottles as well as decomposed organic materials. No battery casing chips or smelter slag was observed in the soil samples collected from these soil borings. The total lead content in one soil sample collected from soil boring SB-11 (3 to 4 foot depth) was only 4.6 mg/kg.

Dust Sampling

A total of 31 dust samples were collected from the floors of the apartment units at the DHA site during the site investigation. Twelve of the samples were collected from unoccupied apartments and 19 samples were collected from apartments currently housing residents. Occupied apartments included units in George Loving Place, Edgar Ward Place, and Elmer Scott Place. Only apartment units of Edgar Ward Place west of Holystone Street were included in this sampling. Unoccupied apartments sampled were limited to units in George Loving Place. The samples were collected by

vacuuming the dust from a measured area of the floor. The dust was collected in filter cassette which were then analyzed for total lead.

Total lead content of the indoor dust in occupied units ranged from 125 to 191 mg/kg (mean of 141 mg/kg). Only three of the units tested were located within Edgar Ward Place. These units were all occupied and had an average lead content of 169 mg/kg.

3.3 Asbestos Survey

A complete asbestos survey was conducted in the 129 apartment-style buildings in Edgar Ward Place by Cole-McDonald (November 1994). The purpose of the survey was to identify ACM which will require removal prior to demolition of the buildings.

The buildings are constructed of brick on a concrete slab foundation. The interior building materials include: textured sheetrock ceilings, textured sheetrock walls on wood studs, and floor tile and mastic. The hot and cold water pipes are insulated. The soffit, fascia, and corrugated partition boards are composed of transite.

Homogenized areas of each building were identified and sampled including: tape and bed, sheetrock ceiling and texture, wall texture, window caulk, floor tile and mastic, transite, and pipe insulation. The samples were analyzed by polarized high microscopy (PLM) using the visual estimation technique.

Rainfall has damaged the sheetrock and texturing on the ceiling of many of the buildings surveyed. Exposed and friable pipe insulation was visible in several of the buildings. Most flooring was intact, but was beginning to separate from the mastic. The exterior transite siding, soffits, and partitions were all found to be non-friable and in reasonable good condition.

ACM is defined as having an asbestos content of one percent or greater. The National Emissions Standard for Hazardous Air Pollutants (NESHAP) rule recognizes two classifications of non-friable ACM, namely Category I and Category II. Category I materials include packings, gaskets, resilient floor coverings, and asphalt roofing products. Category II materials are those excluding Category I

materials that when dry cannot be crumbled, pulverized, or reduced to powder by hand pressure (i.e., non-friable).

The results of the survey and sampling by Cole-McDonald (raw data found under Section 3 of the Asbestos Abatement Specifications) indicated that:

- Pipe insulation was considered friable ACM;
- Transite board, floor tile, floor tile mastic, and window caulk were considered Category I non-friable ACM; and
- Tar and felt paper from roofs of selected buildings did not contain asbestos.

In accordance with the City of Dallas' interpretation of the NESHAP regulation, non-friable floor tile, floor tile mastic, and window caulk do not have to be removed prior to demolition. The wall texturing samples that had an asbestos content of greater than one percent were re-analyzed utilizing the point count method. The results of this analysis indicated that the material contains less than one percent asbestos and is, therefore, not regulated.

3.4 City of Dallas Air Monitoring

Potential sources of air emissions in the West Dallas area have included the RSR Corporation smelter as well as GAF industries (volatile organic compounds [VOCs] and odor), Dallas Steel Drum (VOCs), and Liberty Metals (particulate emissions). All of these industries are located south of the DHA site and as a result of prevailing wind direction from the south/southeast could potentially have an impact on the air quality of DHA residents. Ambient air monitoring stations have been operated at the DHA site and surrounding community over the last 11 years by the City of Dallas to sample for lead. Monitoring stations are located at 3004 North Westmoreland (Boys and Girls Club) and 3434 Bickers Avenue (Amelia Earhart Elementary School).

Data collected from the City of Dallas air monitors from 1983 to the present time indicated the following:

- One violation for quarterly lead concentration in excess of the 1.5 μg/cubic meter regulatory limit occurred in 1983 while the RSR smelter was in operation;

- When the RSR smelter was closed in 1984, the sampling sites south, southwest, and west of the smelter were discontinued;
- No violations of the lead air standard have occurred at the remaining monitoring sites since 1983;
- Monthly lead averages for the Westmoreland Road Station (No. 57) for 1992 ranged from 0.1 to 0.3 μg/cubic meter (maximum daily concentration of 1.9 μg/cubic meter); and
- Monthly lead averages for the Bickers Avenue station (No. 61) for 1992 ranged from 0.0 to 0.1 μg/cubic meter (maximum concentration of 0.1 μg/cubic meter).

Air monitoring results collected by RMT/JN during the building demolition currently in progress in George Loving Place indicate that lead concentrations in the ambient air are well below the ambient air standard of 1.5 mg of lead/cubic meter. The highest ambient air concentration of lead observed in the four to five high-volume samplers operating during the demolition was only 0.45 μg/cubic meter.

Dust levels in the ambient air have been monitored during the soil excavations and building demolition that has occurred in George Loving Place. The 2.8 μg/cubic meter dust standard was developed to keep the lead content in the ambient air of George Loving Place below the permissible exposure limit (PEL) of 50 μg/cubic meter for on-site workers. This lead value was developed from the following formula:

$$\frac{10^6 \text{ mg/kg} \times 0.050 \text{ mg/m}^3 \text{ (PEL for lead)}}{4500 \text{ mg/kg (max. observed dust lead)} \times 4 \text{ (safety factor)}}$$

Except for a few time periods, the dust levels in the air have been below the 2.8 μg/cubic meter standard established for this site. The elevated dust readings were associated with the shredding of straw bales during construction of the storm water retention ponds.

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Section 4
WORKPLAN RATIONALE

4.1 Data Quality Objective Needs

Data Quality Objectives (DQOs) are qualitative and quantitative statements specified to ensure that data of known and appropriate quality are collected. DQOs define data quality requirements based on identified end uses of the database. The DQOs present the overall study objectives and intended data uses for each media/matrix type. Also included are the analytical levels appropriate to achieve the study objectives; the data required to complete the project; and the contaminants of concern for each specific media.

The DQOs for the proposed demolition project in Edgar Ward Place are based on the following criteria:

- Consistency with DQOs established for the RI of OU 2;
- Evaluation of anticipated data gaps based on review of previous investigations;
- Determination of soil contamination as a result of the demolition;
- Air sampling and monitoring to ensure worker health and safety; and
- Identification of a concise set of objectives for the project.

The establishment of DQOs occur during the initial stages of the project planning in order to focus the sampling and analysis activities. Since DQO development is an on-going process, they will be periodically reviewed and refined as necessary.

4.2 Workplan Approach

The sampling program which has been developed for this project will be performed in three phases. as follows:

1) Air sampling to determine the quantity of particulates generated during the demolition;
2) Dust monitoring conducted during the demolition; and
3) Collection and analyses of surface soil samples following demolition.

Based on the data previously collected from analysis of surface soils in Edgar Ward Place, the lead and arsenic concentrations in the soil are low. Therefore, no soil sampling is proposed prior to demolition. Similarly, building materials will not be sampled since the Edgar Ward area of the DHA site will be addressed as a typical demolition project at a non-contaminated site.

The sampling program will be utilized to verify that soil contamination levels at the site are still low following demolition of the buildings and to evaluate contamination of the air during the demolition. The results of this sampling effort will be used to determine: 1) if soil remediation is required and 2) if contaminated dust or air has occurred as a result of the demolition. Details of the sampling program and QA/QC protocol have been included under Appendix A and Appendix B respectively.

Air monitoring in the work area will consist of a minimum of four-five high-volume air samplers and four mini-ram aerosol monitors. The high-volume air samplers will be operated on 8-hour equivalents during the asbestos abatement and demolition phases of the project. The filters will be sampled and analyzed periodically for determining compliance with all local, state and federal air quality standards.

In addition to the high-volume samplers, four PDM-3 Miniram aerosol monitors will be used immediately adjacent to the work area. The aerosol monitors will be used for the establishment of daily total particulate time weighed averages in the work area.

Section 5
PROJECT TASKS

This section of the workplan details each task of the project and describes the deliverables and review requirements associated with each. A brief discussion of data validation and organization, data analysis, and development of project reports is also provided.

5.1 Project Tasks

The demolition project conducted in Edgar Ward Place will consist of 10 primary task as outlined below:

- Development of project workplans;
- Identification of structurally unsound buildings, transformer units, and mercury vapor lamps;
- Performance of asbestos survey;
- Development of plans and specifications for asbestos abatement;
- Development and implementation of SWPPP;
- Abatement of regulated ACM;
- Development of plans and specifications for demolition;
- Demolition of buildings and disposal of debris;
- Confirmation soil sampling; and
- Completion of project.

Development of Project Workplans

In accordance with EPA requirements, the appropriate project workplans will be prepared. These documents will include: 1) demolition workplan; 2) SAP (FSP and QAPP); and 3) site HSP. The demolition workplan presented herein includes a review of site background and a detailed description of the tasks to be conducted during the demolition project. The demolition workplan

also includes an overview of the methodologies; information to be developed; and the deliverables for the activities conducted pursuant to demolition of buildings, as well as the corresponding schedules for completion of those activities.

The SAP consists of both the FSP and QAPP. The FSP defines in detail the sampling and data gathering activities, objectives, information to be gathered, and the locations and frequencies of sampling. The QAPP describes the project objectives and organization including a listing of the personnel responsible for project execution; functional activities; QA/QC protocols; sampling procedures; sample custody; analytical procedures and detection levels; data reduction and validation, and reporting.

The Workplan and SAP will be approved by EPA prior to conducting any field investigations. The site specific HSP will be prepared in accordance with the Occupational Safety and Health Administration (OSHA) regulations applicable to Hazardous Waste Operations and Emergency Response, 29 CFR Part 1910. RMT/JN will send the EPA the site HSP for their review.

Identification of Structurally Unsound Buildings, Transformers, and Mercury Vapor Lamps

A survey of each of the 129 buildings located in Edgar Ward Place (east of Holystone Street) was conducted by RMT/JN and Cole Mc-Donald in November 1994. The survey was utilized to determine the structural integrity of each building in the development. Of special concern to the survey was the presence of regulated ACM that is present in buildings or in parts of buildings that are structurally unsound. Abatement of regulated ACM will not be possible in structurally unsound buildings and must therefore be wet demolished with the building. In summary, there are 14 non-abatable buildings and 36 partially abatable buildings. The remaining buildings are structurally sound and can be abated. A comprehensive list of the buildings integrity is included under Section 2 of the Asbestos Abatement Specifications and will also be included in the building demolition specifications.

Pole-mounted electrical transformers and light ballasts are located throughout Edgar Ward Place. Electrical transformers may potentially contain polychlorinated biphenyls (PCBs). Based on the PCB concentration in the transformer, the liquid may be classified as either PCB contaminated (PCB content of 50 to 499 mg/kg) or as a PCB transformer (PCB content of 500 mg/kg or greater).

Mercury vapor lamps have been observed at the DHA site on light poles. A survey of Edgar Ward Place will be conducted to determine the number and location of overhead lights attached to poles. The contents of the lamp will then be determined.

Conduct Asbestos Survey

An asbestos survey will be conducted for the 129 standing buildings located in Edgar Ward Place. All samples collected during the survey will be analyzed by PLM utilizing the visual estimation method. All samples with an asbestos content between one to 10 percent will then be reanalyzed using the point count method. The condition of the ACM will be noted during the survey (i.e., friable or non-friable). The survey will be conducted by a licensed asbestos inspector in the State of Texas, (Texas Department of Health).

Develop and Implement Storm Water Pollution Prevention Plan

Since the demolition project for Edgar Ward Place will disturb over five acres of land, the DHA is subject to the National Pollution Discharge and Elimination System (NPDES) permit requirements. Compliance with the NPDES requirements of the general permit consists of three major components: 1) submission of Notice of Intent (NOI); 2) preparation and implementation of a SWPPP; and 3) submission of Notice of Termination (NOT). A SWPPP will be developed for the demolition of buildings in Edgar Ward Place in accordance with the, "Final NPDES General Permits for Storm Water Discharges From Construction Sites; (Federal Register, September 9, 1992)". The SWPPP will detail current site conditions and factors that will effect storm water flow.

Abatement of Regulated ACM

Regulated ACM identified in the asbestos survey will be removed (abated) from the buildings located in Edgar Ward Place. Abatement will be performed by a certified abatement contractor. All wastes generated from the abatement process will be bagged and handled as Class I waste. ACM will be left in place in buildings which have been inspected and determined to be structurally unsound. Category I regulated ACM (e.g., floor tile in good condition) will also be left in-place. All demolition will be wet to reduce possible air contamination. Additionally, buildings with regulated ACM or that are structurally unsound will also be wet demolished. ACM abatement will be performed as detailed in the plans and specifications.

Demolition of Buildings

Buildings in Edgar Ward place will be demolished following removal of regulated ACM. As previously noted, regulated ACM in structurally unsound buildings will be left in-place. Dust control methods will be implemented during the demolition process. The demolition will include the demolition and removal of concrete building foundations. RMT/JN will provide oversight and management of the demolition.

Demolition of buildings will be conducted according to the plans and specifications developed by RMT/JN. Air sampling and dust monitoring will be implemented during the demolition process to ensure the safety of workers. This monitoring effort will consist of high volume air samplers and aerosol dust monitors in the work area.

Confirmation Soil Sampling

Following the demolition of buildings, soil samples will be collected throughout Edgar Ward Place to determine the concentration of lead and arsenic in the surface soil. A grid with a 300-foot spacing will be set up over the demolition area and soil samples will be collected from the blocks created by the grid. One composite sample consisting of 10 alliquots will be collected from each grid block. The alliquots will be thoroughly mixed. Samples will be collected from the 0 to 1-inch depth, since previous data (CDM, 1992) indicated that this was the most contaminated depth interval. Samples will be analyzed for total lead and arsenic.

If the soil concentration of lead or arsenic approach the ATSDR recommended levels of 500 mg/kg, 20 mg/kg, respectively, then additional sampling will be implemented. The contaminated 300-foot grid block will be further subdivided into 50-foot by 50-foot blocks (36 blocks total). One sample from each 50-foot block will be sampled and analyzed for total lead and arsenic. Each sample will be a composite of up to four alliquots from the 0 to 1-inch depth. If contamination is identified in any of the 50-foot blocks, a soil sample will be collected from the 0 to 6-inch depth interval. These samples will be analyzed for Toxicity Characteristic Leaching Procedure (TCLP) lead and arsenic for possible waste classification and subsequent profiling and off-site disposal.

Completion of the Demolition

Following removal of the demolished buildings and associated foundations, the demolition area will be re-graded and seeded with grass to prevent erosion. As part of the site completion, clean topsoil may be required.

5.2 Data Validation and Organization

Upon completion of the field investigations, laboratory analyses will be validated and organized (includes summary tables of data). The purpose of the data validation process is to ensure that laboratory QC criteria have been met and that data are of legally defensible quality. All laboratory analyses will be generated with a corresponding Level III QA/QC data package (standard laboratory package).

5.3 Data Analysis

The focus of the analyses will be to: 1) determine the concentration of lead and arsenic in the soils following demolition; and 2) concentration of lead and dust in the air during the demolition process. The results of the analyses will be used to determine if any further site remediation is necessary. The air sampling and dust monitoring data will be utilized to evaluate the impacts of the demolition activities to worker health and safety.

5.4 Project Report

At the completion of demolition activities, and in accordance with the schedule approved in the project plans, the EPA will receive a report. The report will document the activities conducted at the site during the demolition and summarize data and information collected during the project. The demolition report will incorporate data collected during RMT/JN's soil investigation and combine this with the data collected during the demolition activities (in sampling).

Section 6

PROJECT MANAGEMENT AND SCHEDULE

6.1 Project Management

The project manager for RMT/JN is Doug Roming. Onsite management will be provided by Michael Bohmfalk. Senior technical personnel will oversee this operation providing guidance and insight into potential future litigation support requirements. Senior technical reviewers will include Mr. Alex Onjanow under the direction of Mr. Dan Mueller. The Quality Assurance Manager is Mr. Michael Whitehead. Resume's of the management team have been included in Appendix D.

6.2 Project Schedule

The schedule developed by RMT/JN for the demolition project includes the asbestos survey, development of asbestos abatement plans and specifications, asbestos abatement, development of demolition plans and specifications, demolition, and final grading of the site. The schedule may be impacted by inclement weather conditions and the bidding process. Table 6-1 is a floating time line for the project. This time line will vary depending on regulatory approvals to the plans and specifications and/or weather delays.

TABLE 6-1

PROJECT SCHEDULE

EDGAR WARD PLACE

DALLAS HOUSING AUTHORITY

TIME IN MONTHS

Activity	1	2	3	4	5	6	7	8	9	10
Asbestos Abatement Plans and Specifications with Regulatory Approval*	■									
Asbestos Abatement		■	■	■	■	■				
Development of Demolition Plans and Specifications with Regulatory Approval*	■	■								
Demolition of Buildings					■	■	■	■	■	
Confirmation sampling and Analysis								■	■	
Final Grading of Site									■	■
Status and Coordination Meetings with EPA (monthly)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Final Report									■	■

* NOTE - Schedule may vary depending on Regulatory Approvals and weather delays for all phases of the project.

Section 7

REFERENCES

Camp Dresser & McKee Inc., 1992, Progress Report.

Coffee, D.R., R.H. Hill, and D.D. Ressel, Soil Survey of Dallas County, USDA Soil Conservation Service.

Cole-McDonald Engineering Consulting, Inc., November 1994, Pre-Demolition Asbestos Survey For Edgar Ward Place.

RMT/Jones and Neuse, Inc., 1994, Remedial Investigation, Operable Unit 2, RSR Corporation Site.

U.S. Environmental Protection Agency, October 1988, Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, Interior Final, EPA 540G-80004.

APPENDIX A
FIELD SAMPLING PLAN
FOR
BUILDING DEMOLITION PROJECT
EDGAR WARD PLACE
DALLAS HOUSING AUTHORITY
DECEMBER 1994

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APPENDIX A
FIELD SAMPLING PLAN
BUILDING DEMOLITION PROJECT
EDGAR WARD PLACE

The sampling and analytical tasks that are proposed for the demolition of structures in Edgar Ward Place at the Dallas Housing Authority's (DHA) West Dallas Development are outlined in this Field Sampling Plan (FSP). The FSP along with the Quality Assurance Project Plan (QAPP) constitute the Sampling and Analysis Plan (SAP).

The entire DHA site is currently designated as Operable Unit 2 of the RSR Corporation site. The RSR site is currently proposed for addition to the National Priorities List. [Note: The RSR site is a federal and not a state superfund site and primarily managed by the U.S. Environmental Protection Agency (EPA).]

The proposed demolition project will be limited to the area of Edgar Ward Place east of Holystone Road. There are 132 buildings in this area. Three of the buildings have been burned to the ground, therefore the demolition will involve only the remaining 129 buildings and three building foundations. The demolition project will consist of the following tasks: (1) abatement of asbestos containing materials (ACM); (2) demolition and removal of 129 buildings; (3) dust monitoring and suppression, (4) confirmation soil sampling following demolition; and (5) site re-vegetation and proper grading as necessary.

Activities related to identification and removal of ACM along with storm water pollution prevention planning are not addressed in this FSP. The storm water pollution prevention plan (SWPPP) has been prepared as a separate document.

A.1 SAMPLING OBJECTIVES

The FSP presented herein details the sampling and analytical activities which will occur during the demolition project in Edgar Ward Place. Sampling events proposed for this project will include:

- Air sampling;
- Dust monitoring; and
- Surface soil confirmation sampling.

Any sampling related to storm water will be addressed in the Storm Water Pollution Prevention Plan (SWPPP).

The objectives of the proposed sampling for the demolition project are to: 1) Establish baseline air quality data for the area during demolition; 2) Monitor the dust levels in the ambient air during demolition; and 3) provide confirmation data samples for lead and arsenic in surface soils. Table A-1 is a analytical summary for the project.

A.2 SAMPLING LOCATION AND FREQUENCY

Air Quality

The baseline air quality data for the area will be determined by using four to five high volume samplers. The sample filters will be collected daily from each high volume sampler and analyzed for total suspended particulates and total lead. Four of the samplers will be located on each corner of the Edgar Ward Development with one portable high volume sampler being utilized when demolition activities are being conducted adjacent to occupied areas. Each high volume sampler will be operated on 8-hour equivalents during working days at the site. Each high volume sampler will be calibrated weekly for QA/QC purposes.

The filters for the high-volume samplers will be oven-dried and weighed prior to collection. After oven-drying and weighing, each sample filter will be placed into a resealable bag until it is required for use.

The samples will be collected daily, logged onto chain-of-custody logs and shipped to the laboratory for analysis. Each sample will be analyzed for total suspended particulate matter by method specified in 40 CFR part 50 and for total lead by EPA Method 6010(2)/40 CFR p50. The samples will be analyzed on a 24-hour turn-a-round time, and the results will be posted daily for review by on-site workers and regulatory personnel.

TABLE A-1
ANALYTICAL SUMMARY
EDGAR WARD PLACE

Samples		Field QA/QC		Analyses[1]	
Sample Media	No. of Samples	Duplicates	Equipment Blanks	Total Lead	Total Arsenic
Surface Soil (other)	60	6	1[2]	✓	✓
Subsurface Soil (0 to 6 inch)	Unknown	Unknown	1[2]	✓	✓
Ambient Air	Unknown	2	1/day	✓	

1 - Total lead and arsenic by EPA Method 6010. TCLP analysis may be added.

2 - Trip blanks will accompany each sample shipment.

Dust

Dust levels in the ambient air will be monitored in the demolition work zone(s) on a continuous basis. One aerosol monitor, (PDM 3 Miniram or equivalent), will be set up on each corner of the work zone during demolition activities. These aerosol monitors will be closely monitored during the day to assure that demolition activities are not generating isolated dusts in excess of 2.8 mg/m^3 within the immediate work area.

The aerosol monitors will be calibrated on a daily basis for QA/QC purposes. At the end of each work day, the time weighed average (TWA) will be recorded onto a log sheet and posted for review by on-site workers and regulatory personnel.

If at any time during the demolition activities the aerosol monitors read dusts in excess of 2.8 mg/m^3, all work activities will be halted until acceptable levels are achieved. Further, a notation will be made as to the reason for excessive dusts, the location of the occurrence and the corrective measures taken.

Surface Soil

Approximately 60 composite soil samples will be collected within the Edgar Ward Place following the demolition activities. The demolition area will be gridded into 300-foot by 300-foot grids. Following the gridding of the area, a 10 part composite sample will be obtained from each block formed by the 300-foot grid.

These samples will be obtained from the 0 to 1-inch depth interval. All samples will be obtained using dedicated rubber gloves, and trowels. Each sample will be place into precleaned laboratory supplied jars, logged onto a chain-of-custody, labeled and bar-coded, custody seal affixed and placed into resealable bag. All samples will be preserved in a cooler to 4°C accompanied by a trip blank until delivery to the laboratory for analysis. Each trip blank will also be analyzed to assure that cross contamination did not occur during shipment.

Upon receipt of the laboratory data, if the samples indicate the presence of concentrations of concern above the established cleanup criteria (500 mg/kg lead; 20 mg/kg arsenic)

additional samples will be collected and the 300-foot grid would be considered a contaminated area. The 300-foot by 300-foot grid area will be subdivided into 50-foot by 50-foot grid sections. These grids will then be sampled by obtaining a four part composite sample from each grid from the 0 to 1-inch depth interval. These samples will be managed as previously stated and analyzed for the constituents of concern. If the data obtained form these samples indicate elevated levels for the constituents of concern, a second sample from the 50-foot by 50-foot grid area will be obtained form the 0 to 6-inch depth interval. These samples will then be analyzed by the Toxicity Characteristic Leachate Procedure (TCLP) for the constituents above the established cleanup criteria. Grid areas will be excavated a minimum of 6-inches and soils disposed off-site. Confirmation sampling will be conducted in the excavated area to ensure that contaminated materials have been removed prior to backfilling.

A.3 SAMPLE EQUIPMENT

Air Quality/High Volume Pumps & Samplers

All high volume pump samples will be obtained using laboratory supplied filter sheets. The sheets will have been previously oven-dried and weighed for calibration purposes. The filter sheets will be labeled, placed into a resealable bag and stored in a clean dry environment until required for use.

All work with the sample sheets will be performed using dedicated latex gloves to prevent cross contamination. After each sample sheet is removed from the high volume pump, the filter will be placed into a resealable bag, logged onto a chain-of-custody form and shipped to the laboratory for analysis.

Following removal of the sample filter sheets, the screens and surrounding area will be wiped clean with a dedicated cleansing rag to remove any dust particles. This cleansing will eliminate the amount of residual dust from the previous days sampling activities.

Following the decontamination of the screens, new latex gloves will be utilized prior to replacement of the new sample filter. Each sample filter will then be properly placed on the screen, secured and the pump will be restarted for the next sampling period.

Dust Monitors

The aerosol air monitors will be cleaned and calibrated on a daily basis. The cleaning of the aerosol monitors will consist of a cotton swab and a isopropyl alcohol solution. The lenses of the aerosol monitors will be cleaned to remove any residual dust particles to prevent the possibility of false readings.

The calibration will consist of placing the aerosol monitor into a resealable plastic bag, closed, and filled with a filtered air bulb injector. The aerosol monitor will be allowed to run until it has "zeroed" itself and shuts off. At this point the unit will be calibrated and ready for operation.

Soil Sampling

As previously stated, the soil sampling activities will be performed using dedicated equipment to the fullest extent possible. If equipment is used that must be decontaminated, the decontamination process will include a primary wash with deionized water and phosphate free detergent, followed by a deionized water rinse. The equipment will then be washed in a second deionized water, phosphate free soap solution and then rinsed with deionized water again.

All generated decontamination waste waters will be containerized on-site pending laboratory analysis for total lead, arsenic and cadmium. The dedicated equipment will be placed into garbage bags, sealed, and properly disposed.

The following is a list of the surface soil sampling events with the required equipment. Also included is the required health and safety equipment.

1. Prior to sampling, the area will be surveyed and a 300-foot by 300-foot grid set up and marked with stakes or flags.

2. Locate sample point on field map and begin field log book notations and describe the sampling location within each grid.

3. Note orientation of 35mm photograph to be taken of sampling location. Place the sample location identification sign within photograph.

4. Record details in field log book such as film roll and number, weather conditions, field personnel, etc.

5. If required, decontaminate all equipment prior to and after use.

6. Put on clean disposable latex gloves prior to handling equipment and samples.

7. Collect 10 soil samples from the 0 to 1 inch depth in 10 random locations of 300-foot grid using a dedicated trowel. Thoroughly mix samples in mixing bowl or composited by the laboratory.

8. Place homogenized sample into clean sample jar or bag. Excess soil should be returned to the same location as which it came.

9. Label samples, log onto chain-of-custody forms and/or bar-coder.

10. Affix a custody seal to the lid.

11. Place into a resealable plastic bag.

12. Place into a cooler with ice accompanied by a trip and field blank.

13. Ship samples to the analytical laboratory every one to two days, or as needed.

14. Describe the soil materials in the field log book for each depth interval and complete notes.

Table A-2 is a list of the equipment that will be used during the Edgar Ward Place demolition project.

A.4 SAMPLE DESIGNATION

Samples collected during the demolition project in Edgar Ward Place will include ambient air and surface soil. Dust levels in the air will be continuously monitored, but no samples will be collected. Each of the samples will be assigned unique identification numbers based on the following protocol:

- The first two digits will represent the project identification code "EW";

TABLE A-2

EQUIPMENT LIST

EDGAR WARD PLACE

Soil Sampling
• Stainless Steel Mixing bowls • Dedicated Trowels • Ruler & measuring tape • Stakes
Ambient Air/Dust Monitoring
• High-volume samplers (total particulate) • Calibration kit • Weather monitor (precip., temp., wind direction, etc.) • MIE PDM-3 Minirams • Triapod
Equipment Decontamination
• Plastic Sheeting • Alconox or liquinox • Tap water • Distilled or deionized water • Buckets & brushes
Health and Safety
• Tyvek or Saranex (optional) • Outer boots • Gloves (cloth and latex) • Hard hat (when around heavy equipment) • Respirator w/ HEPA cartridges (upgrade conditions only)

- The next two characters will identify the sample type (e.g., SS for surface soil samples);
- The third set of characters will be a two digit code indicating the site location (e.g., SS-01 through 25);
- Site location codes for surface soil samples will be followed by another code indicating the sample depth interval (i.e., A for 0 to 1 inch and B for the 0 to 6 inch).

For example, the sample identification number: EW-SS-11B would represent a subsurface soil sample collected from location SS-11 from the 0 to 6 inch depth interval. The identification code for ambient air will be "AA" and "SS" for surface soil. Sample identification numbers will be assigned by the Doug Roming or Michael Bohmfalk prior to sample collection.

A.5 SAMPLE HANDLING AND ANALYSIS

This section includes details regarding sample handling and analysis along with documentation procedures and shipping information.

Sample Handling

Proper handling of soil and dust samples collected at Edgar Ward Place is critical for obtaining high quality and usable data. The aspects of sample handling include preservation methods, type of sample containers, shipping requirements, and holding times. A summary of sample handling requirements for each analytical parameter proposed for this project is presented in Table A-3. The QA/QC requirements to be implemented during their project will be 10 percent.

Soil samples will be mixed and placed into 4 ounce or larger glass wide mouth jars. Although no preservation for these samples is required and the holding time is six months, additional QA/QC procedures will be implemented and all samples will be cooled to a minimum of 4°C. These jars will then be placed into a cooler or other suitable container and delivered to the laboratory.

TABLE A-3
SAMPLE COLLECTION AND HANDLING
EDGAR WARD PLACE

Sample Media	Estimated No. of Samples	Analytical Parameters	QA/QC (Frequency)	Sample[1] Container	Preservation	Holding Time
Ambient Air	Unknown	Lead & arsenic	0%	Bag	None	6 months
Surface Soil (0 to 1 inch)	60[2]	Lead & arsenic	10%	G, 4 oz.	None	6 months
Subsurface Soil (0 to 6 inch)	Unknown[3]	Lead & arsenic	10%	G, 4 oz.	None	6 months

1 - G - glass

2 - 60 samples for first round.

3 - Based on results of first round of sampling from 0 to 1 inch depth.

Sample Analyses

High-volume filters will be sent to an analytical laboratory for determination of total lead content. The samples will be analyzed using EPA Method 6010 (inductively coupled plasma).

Surface soil samples will be analyzed for total lead and arsenic by EPA Method 6010. Selected samples may be analyzed for TCLP lead and/or arsenic utilizing EPA Methods 1310 and 6010, if total values exceed 500 mg/kg for lead and 20 mg/kg for arsenic.

Documentation Procedures

Sample tracking and documentation will involve the use of field log books, field maps, site photography, sample labeling, and chain-of-custody forms. These procedures allow tracking of each sample from the time of collection to receipt by the laboratory.

Log Books

Each sampling team will use a log book to record all sampling activities. Field log books will be numbered and bound. In the field log books, team sampling leaders will record the date and time of sample collection, the sampling location, the sample identification number, sampling personnel and others present, weather and other conditions at the site, a photographic log, and other pertinent sampling events in chronological order.

Sample Labeling

Each sample will have a completed sample label or tag securely attached. Labels will include the project code, location of sampling site, type of sample, analyses required, time of sampling and the initials of the sampler. Following collection of each sample, the complete sample identification number will be marked on the sample container and lid. Sample jars received from the laboratory will be appropriately labeled with an indelible marker.

Chain-of-Custody Forms

Chain-of-custody forms with bar-code readers will be used for the samples collected at Edgar Ward Place. The forms will be correlated with the sample collection labels. The

sampler will complete a chain-of-custody form from the bar-code reader to accompany each sample shipment from the field to the laboratory. A sample Chain-of-Custody form is provided at the end of this section as Figure A-1.

Sample Shipment

Each sample shipped will be packed in accordance with Department of Transportation (DOT) regulations which include documentation requirements. In addition, each sample will be identified with a sample identification label or tag and will be listed on the chain-of-custody form completed for each sample shipping container. The field sample custodian will notify the laboratory sample custodian of sample shipment.

Figure 1

JONES AND NEUSE
912 CAPITAL OF TEXAS HIGHWAY SOUTH, SUITE 300
AUSTIN, TEXAS 78746

CHAIN OF CUSTODY

JOB. NO.	CLIENT	ANALYSES REQUIRED (EPA-approved methods only)	
SAMPLER(S) SIGNATURE(S)			

SAMPLE ID #	DATE	TIME	TYPE	SAMPLE DESCRIPTION	NO. OF CONTAINERS	Preservative	REMARKS (Potential Hazards,

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED FOR LAB BY:	DATE

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APPENDIX B
QUALITY ASSURANCE PROJECT PLAN
FOR
BUILDING DEMOLITION PROJECT
EDGAR WARD PLACE
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DECEMBER 1994

APPENDIX B

QUALITY ASSURANCE PROJECT PLAN

B.1 PROJECT OBJECTIVES

The Quality Assurance Project Plan (QAPP) presented herein was developed by RMT/Jones and Neuse, Inc. (RMT/JN) in accordance with CERCLA requirements. Edgar Ward Place as well as the rest of the Dallas Housing Authority's (DHA) West Dallas Development is currently designated as Operable Unit 2 of the RSR Superfund site. The objectives of the QAPP developed for the Edgar Ward Place Demolition Project are to:

- Define the field and sampling activities needed to characterize the nature and extent of contamination at Edgar Ward Place.
- Outline and document policies and procedures to ensure total quality assurance (QA) and quality control in all phases of the project.

B.2 PROJECT TEAM ORGANIZATION

The team RMT/JN has selected for this project provides DHA with technical and managerial experience from similar projects around the United States. The project team is organized as described in the workplan. Senior technical personnel will oversee this operation providing guidance and insight into potential future litigation support requirements. This project will be managed by Mr. Doug Roming. Senior technical reviewers will include Mr. Alex Onjanow under the direction of Mr. Dan Mueller. The Quality Assurance Manager is Mr. Michael Whitehead.

B.3 FIELD EQUIPMENT OPERATION, MAINTENANCE, CALIBRATION AND STANDARDIZATION

Field equipment, such as the MEI Miniram aerosol monitor, used during the Demolition Project at Edgar Ward Place will be operated, maintained, calibrated, and standardized in accordance with manufacturer and, EPA specifications, where applicable. Each piece of field equipment will have a protocol package that contains, as appropriate, the following:

- Standard operating procedures;

- Routine preventative maintenance procedures including a list of critical spare parts to be available in the field;
- Calibration methods, frequency, and description of calibration solutions;
- Standardization procedures (treatability to known standards); and
- Precision and accuracy assessment procedures.

Reliability of environmental measurements will be based upon sound calibration procedures for the analytical equipment. Frequent calibration checking will ensure continued reliability. All field and laboratory measurements must be made relative to known standards.

Field Monitoring Equipment

Building interior dust sampling and surface soil sampling do not require any specialized instruments or tools. Air monitoring/sampling and weather equipment will be used during the demolition phase of the project. This equipment will include:

- MEI Miniram (dust monitor);
- High-volume air sampler (total lead and total suspended particulates) and
- Weather station in on-site trailer.

The weather station will include air direction, wind speed, relative humidity, temperature, and precipitation measurements.

B.4 SAMPLING PROCEDURES

The objectives of sampling and field measurements are to obtain samples and measurements that accurately and precisely represent the environment being investigated. Trace levels of contaminants from external sources must be eliminated through the use of proper sampling techniques, proper sampling equipment, proper decontamination procedures by experienced field personnel.

Field measurements and sampling will be performed in accordance with accepted procedures and as previously discussed. The Field Sampling Plan and this QAPP for the

Edgar Ward Place site specifies the standard operating procedures to be used during the investigations. The details of the field procedures are provided in A.3 of the FSP. Sample handling and analysis is detailed in A.5 of the FSP.

All samples will be sent to Core Laboratories or other designated laboratory. The address of the Core Laboratory is:

Core Laboratories
1875 Monetary Drive
Carrollton, Texas 75006

Core Laboratories
10703 East Bethany Drive
Aurora, Colorado 80014

Questions regarding the laboratory should be directed to Ed York of Core Labs at (214) 466-2673.

B.5 ANALYTICAL PROCEDURES

Soil collected from Edgar Ward Place will be analyzed by a non-CLP laboratory utilizing a level III data package. The laboratory will utilize EPA Method 6010 (inductivity coupled plasma) for analysis of total lead and arsenic. Split samples may be collected by the EPA and/or Texas Natural Resource Conservation Commission (TNRCC) for analysis. In general, the laboratories utilized during the demolition project will follow recommendations from the following sourcebooks:

- 40 CFR 792, "Good Laboratory Practices";
- Criteria described in, *"Methods for Chemical Analysis of Water and Wastes"*, 1983 (EPA-600 14-70-020, revised 1983);
- "*Test Methods for the Analysis of Solid Wastes*", (SW-846, 3rd Ed.);
- "Federal Register, 40 CFR Part 136", October 1984; and
- Where applicable, the requirements of the EPA CLP statement of work for 1993.

B.5.1 Laboratory Analysis & QA/QC Requirements

Soil samples collected during the demolition project will be sent to Core Laboratories for analysis. These laboratories have an approved QA plan in place which describes corrective

actions and delineates QA responsibilities within the laboratory. Specific requirements for the frequency of analysis and control-limits for general QC sample types described below.

B.5.2 Quality Assurance Objectives for Measurement Data

The demolition project conducted for the Edgar Ward Place site will include sampling and analysis of the soil and air filters. The overall QA objective for measurement data is to ensure that the data generated is of documented quality and is legally defensible for the intended data uses. In order to meet these objectives, data will be: (1) representative of actual site physical and chemical conditions; (2) comparable to previous and subsequent data from other studies; (3) complete to the extent that necessary conclusions may be reached; and (4) of known quantitative statistical significance in terms of precision and accuracy at levels appropriate for each stated data use for the project. Quantitative limits will be established for QA objectives such as accuracy of spikes and reference compounds, precision, and method detection limits (MDLs). Quality assurance objectives for measurement data are usually expressed in terms of precision, accuracy, representativeness, completeness, and comparability (also known as the PARCC parameters).

Precision is a measure of mutual agreement among individual measurements of the same property, usually under prescribed similar conditions. Precision is represented by percent difference (RPD), relative percent difference, and relative standard deviation. Accuracy is a measure of how close an analytical result is to a true value. A true value is established from a certified concentration based upon many analyses. Accuracy is a measure of the bias in a system and is generally expressed as a percentage of the true value. Representativeness refers to the degree to which data accurately and precisely represent the true value of a characteristic of a population; parameter variations at a sampling point; a process condition; or an environmental condition intended to be characterized. Completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount that was expected to be obtained under normal conditions. Field and analytical data may be specified at different completeness levels. The completeness criterion should be defined to be consistent with the project Data Quality Objectives (DQOs). In general, a completeness criterion of 90 percent usable data for

specified project data uses will be the completeness target for the site investigation. Comparability refers to the confidence with which one data set can be compared to another. Comparability may be assessed by comparing different sampling methodologies, analytical methodologies, and units of reported data.

B.5.3 Quantitative Limits

Quantitative limits will be established for accuracy of spikes and reference compounds, precision, and MDLs. The control limits for method blanks will be less than the MDL for all analytical methods. The control limits for duplicate samples will be ±35 RPD. The control limit for matrix spike and method control samples, with the exception of metal analysis, will be 40 to 150 and 50 to 130 percent recovery, respectively. The percent recovery for metals will be 75 to 125 for matrix spike samples and 80 to 120 for method control samples.

B.6 QUALITY CONTROL CHECKS

This section presents quality control checks that will be conducted during the demolition project to ensure analytical data quality. This includes field quality control samples, and electronic data base quality control.

B.6.1 Field Quality Control Checks

The following types of QC samples will be collected in the field and shipped to the laboratory along with the other samples. The type and frequency of these field QC samples are also discussed in A.5 of the FSP. Trip blanks will be collected for this investigation, as a secondary QA/QC procedure.

A decontamination rinsate blank will be prepared and submitted for analysis during the soil sampling program at a target frequency of one per day. This blank will consist of analyte-free water collected by rinsing soil sampling equipment following equipment decontamination. Field blanks are sample bottles filled with analyte free water that are opened in the field and transferred back and forth (three times) between bottles. Blind field blanks will be collected at a minimum frequency of one per day. Field duplicates will be

collected during the soil sampling program. The sample will be collected from a homogenized composite of the sample. Field duplicates will be collected at a minimum frequency of one per every 20 samples.

B.6.2 Electronic Data Base Quality Control

The analytical data from the laboratory will be electronically downloaded to the QC database. This transfer will be checked for accuracy by doing an electronic check of the database against the laboratory diskette deliverable. If greater than five percent of entered values are found in error and corrected, an additional 100 percent quality control check will be done. Electronic data bases manipulated by computer programs will have a minimum of five percent of data checked to ensure the programs functioned correctly.

B.7 SAMPLING CUSTODY AND DOCUMENTATION

Sample custody and documentation QA/QC activities will be implemented during the project. These activities are designed to maintain the custody and integrity of the samples. QA/QC activities will include sample tracking and documentation, site security measures, sample preparation QC, and field audits. These activities are designed to ensure that QA/QC measures are adequately and properly applied during the project.

Sample tracking and documentation will involve the use of field log books, sample preparation and tracking log books, field maps, site photography, sample labeling, and chain-of-custody forms. These procedures allow tracking of each sample from the time of collection through the preparation process to receipt by the laboratory.

B.7.1 Field Sampling Operations

Field sampling custody and documentation will include sample log books, field maps, site photography, and sample labeling, and chain-of custody forms. Each sampling team will use a log book to record all sampling activities. Field log books will be numbered and bound. In the field log books, the date and time of sample collection, the sampling location, the sample identification number, sampling personnel, weather and other conditions at the site will be recorded. A photographic log and other pertinent sampling events in chronological order will also be included.

Chain-of-custody forms will be filled out for all samples collected in the field and transported or shipped to laboratory(ies) for analysis. The field team will have a designated field sample custodian with overall responsibility for sample custody, and for field document control. The custodian will ensure that the sampling teams have and use the appropriate identification and custody records, will resolve custody problems in the field, and will handle the shipment of samples to the analytical laboratories. It is assumed that each analytical laboratory will have an identified sample custodian and document control officer.

Each collected sample, including duplicates and trip or field blanks, will have a completely filled-in sample label securely attached to it. Duplicates, sample splits, and blanks will be shipped "blind" to the laboratory, but will be assigned a unique identification code in order to facilitate identification of the laboratory results. Sample collection tags will be preprinted to ensure that the required information is provided on each tag. Tags will include the Project Code number, the location of the sampling site (both address and site code), the type of sample and the analyses required, the time of sampling and the signature of the sampler. The entire reverse side of the tag is available for Remarks. The person who physically collects the sample is the Sampler and will sign the sample tag.

B.7.2 Laboratory Procedures

The laboratory procedures followed during the demolition project are outlined in each of the analytical laboratory's QC manuals. These manuals will be kept at the RMT/JN office in Dallas during the project for review.

B.8 DATA REDUCTION, VALIDATION, AND REPORTING

All samples subject to laboratory analysis will be validated and verified by the laboratory. Upon completion of the laboratory analyses, an independent validation of a portion of the data will then be performed. RMT/JN will consult with EPA to determine what data require validation.

Reduction of laboratory measurements and laboratory reporting of analytical parameters shall be in accordance with the procedures specified for each analytical method (i.e., perform laboratory calculations in accordance with the method-specific procedure). Any

special reporting requirements (e.g., reporting concentrations in soil on a dry or wet weight basis) shall also be delineated in an SOP. All method deviations and reporting or calculation variances will be fully documented by the project lab. Analytical parameters shall be reported in units generally accepted within the industry.

B.8.1 Data Validation and Assessment

Data quality and utility depends on many factors, including sampling methods, sample preparation, analytical methods, quality control, and documentation. Subcontractors, such as laboratories or sampling personnel, must be advised of all applicable documentation and procedural requirements. Once the data are assembled, satisfaction of all validation criteria will be documented as listed below. Chemical data must meet criteria of: (1) quantitative statistical significance; (2) custody and document control; and (3) sample representativeness. Physical data include: (1) sampling location, time, and personnel; (2) documentation; and (3) methodologies.

Documentation may be either direct (e.g., listing of dates, names, methodologies, etc.) or by reference to existing documents. Any reference documents will be specifically identified. The precise and retrievable location of nonstandard documents (e.g., in-house procedures manuals, chain-of-custody forms, laboratory reports) will be stated.

QC Documentation

Laboratory data are screened for inclusion and frequency of the necessary QC supporting information (detection limit verification, initial calibration, continuing calibration, reagent blanks, duplicates, spikes, etc.). QC information not included or of insufficient frequency is cause to designate the affected measurement data as questionable or invalid. Requests for reanalysis for additional QC-supporting information can be made at this point.

Corrective Action

QC supporting information is then screened for QC data outside established control limits, and if out-of-control data are discovered, the specified appropriate corrective action is also

obtained from the supporting information. Certain out-of-control data without appropriate corrective action are cause to designate the affected measurement data as questionable or invalid. Requests for reanalysis can be made at this point.

It is the responsibility of the Laboratory Manager and the Laboratory QA/QC supervision to implement corrective action when any of the QC measures do not meet the required criteria. The criteria for the implementation of corrective action related to the analysis of laboratory samples is discussed in detail at the end of this section.

For all QC samples, either a flag or no corrective action is specified. This includes:

- Holding times
- Matrix Spikes, duplicates, and matrix spike duplicates
- Graphic Furnace Atomic Absorption (GFAA) duplicate injection (one time reinjection only required)
- GFAA analytical spikes (see CLP decision tree for Method of Standard Additions (MSA) analysis)
- EPA-approved standards

Thus, it is recognized that if a laboratory is operating per protocol and no error or anomaly has occurred during sample preparation and analysis, the only meaningful corrective action is redigestion/re-extraction and reanalysis. The existence of out-of-control, qualified results does not automatically invalidate data. This latter point is repeatedly emphasized in the EPA "Functional Guidelines for Data Validation" and is inherently acknowledged by the very existence of the data validation/flagging guidelines.

Data Base QC

Validated data and appurtenant precision and accuracy statements shall be entered into a project data base management system. Duplicate data entry or item-by-item independent entry checks shall be performed as a quality control check of entry accuracy. Computerized data storage should also be routinely verified through the use of a software test program designed to verify the accurate retrieval of data (both sorted and unsorted).

Data Validation and Reduction Package

The entire data validation and reduction package, plus the data base management system file printout shall be transmitted to the client in a format which presents a summarization of the samples collected, results data, and the associated QA/QC which defines the analytical quality of the data.

Field Measurement Data

Validation of data obtained from field measurements will be performed by the project staff. Validity of all data will be determined by checking calibration procedures utilized in the field as appropriate, evaluating duplicate and control sample analyses, and by comparing the data to previous measurements obtained at the specific site. Large variations (greater than 10 percent) will be examined in association with changes in local weather conditions and general trends. Variations in data which cannot be explained will be assigned a lower level of validity and will be used for limited purposes. The project staff will summarize the data obtained from field measurements and will include this information in field log books.

Final Reporting and Report Archival

Upon successful completion of the data validation process and assessment of usability of the data, all data generated from the demolition project will be entered into a data base management system (DBMS). Data will be available for analysis by the site manager and other authorized personnel using specific DBMS access codes. Data summaries and results will be submitted. Copies of all analytical data and/or final reports are retained in the laboratory files and, at the discretion of the laboratory manager, data will be stored on computer disks for a minimum of six months.

B.9 AUDIT PROCEDURES

One internal audit will be performed during this project. The internal audit is the responsibility of the QA/QC officer. Additional audits may be performed, if problems are discovered. Subsequent to an audit, the QA/QC officer will develop an audit report that summarizes the audit findings, including those areas found to be in non-conformance and the proposed corrective measures. This report will be prepared in memorandum form, submitted to the project manager, and copied to the project file.

Field performance audits will be conducted as required by EPA or the QA/QC officer. It is understood that the EPA may request an audit of any of the procedures set forth in the project documents. A field performance audit will consist of a visit to the field to verify that all QA/QC procedures set forth in the SAP are being followed. The auditor will compare the sampling, collection, and documentation procedures as stated in the project documents to what is actually being performed in the field. Discrepancies will be noted and the appropriate field personnel will be notified so that corrections can be made immediately. A formal field performance audit report will be produced and delivered to the project manager and field personnel. A copy will also be submitted to the files.

B.10 CORRECTIVE ACTION

An important part of the QA program developed for the project to be conducted at Edgar Ward Place site is a well defined, effective policy for correcting problems. The QA program operates to prevent problems, but it also serves to identify and correct those that already exist. Usually these problems require either on the spot, immediate corrective action or long term corrective action.

The corrective action system to be used during the project is designed to identify problems quickly and solve them efficiently. The QA officer is responsible for the direction of this system and receives full support from management for its implementation. The essential corrective action steps for this project are as follows:

- Identify and define the problem;
- Assign responsibility for investigating the problem;
- Determine a corrective action to eliminate the problem;
- Assign and accept responsibility for implementing the corrective action;
- Implement the corrective action;
- Verify that the corrective action has eliminated the problem; and
- Document the problem identified, the corrective action taken and its effectiveness in eliminating the problem.

B.11 QUALITY ASSURANCE REPORTS TO MANAGEMENT

Reports which present data resulting from field or laboratory measurements during the project will contain a QA section addressing the quality of the data and it's limitations. The QA section will address the following points as appropriate:

- Adherence to the SAP and Workplan with an explanation of deviations to these plans;
- Precision, accuracy, and completeness of the data reported, in quantitative terms, as compared with the objectives set for those parameters;
- Representativeness and comparability of data in qualitative terms as compared with objectives set for those parameters;
- Changes and revisions to the documents regarding field work;
- Summary of QC activities, including development of standard operating procedures and QC procedures; and
- Summary of QA activities such as results of performance and/or system audits, description of quality problems found, and description of corrective actions taken.

Measurement reports generated as a result of field or laboratory activities will be reviewed by the QA officer and the project manager.

APPENDIX C
SITE HEALTH AND SAFETY PLAN
FOR
BUILDING DEMOLITION PROJECT
EDGAR WARD PLACE
DALLAS HOUSING AUTHORITY
DECEMBER 1994

HAZARD ASSESSMENT

1. General Information

PROJECT: Dallas Housing Authority (DHA) **PROJECT NUMBER:** 50-0153503.04

SITE LOCATION: Edgar Ward Place **PROJECT MANAGER:** Doug Roming

PREPARED BY: Kim Golden **DATE:** _____

APPROVED BY: **(PM)** _____ _____ **(HSC)**

DATE: December 29, 1994 _____ _____

PROPOSED SCOPE OF WORK AND SPECIFIC TASKS: Remedial investigation, remediation/demolition sampling, and remedial oversight, which will include: (1) soil sampling at Edgar Ward Place for confirmation purposes; (2) testing to determine waste classification and disposal options if required; (3) verification sampling to evaluate the effectiveness of cleanup if required; and (4) oversight of remediation including air monitoring.

PROPOSED DATES OF ON-SITE WORK: January 1995 to August 1995

BACKGROUND REVIEW: Complete ☒ Preliminary ☐

DOCUMENTATION/SUMMARY OVERALL HAZARD: Serious ☐ Moderate ☐ Low ☒ Unknown ☐

2. Site Characterization

FACILITY DESCRIPTION: The West Dallas Development is a 460-acre area with 3,500 public housing units and several associated maintenance buildings, schools, and day care facilities. A site map is attached. The RSR lead smelter facility is located approximately 600 feet south of Singleton Blvd., which runs along the south side of the DHA site.

Status (active, inactive, unknown): Active

Operations (current and past): Prior to 1942, the site was undeveloped. No manufacturing or industrial operations have been conducted on the site. In the early 1970's, concerns were raised regarding human and environmental exposure to lead emissions from the RSR lead smelter. Portions of the DHA site and areas adjacent to the RSR smelter were remediated in 1985. However, elevated lead and arsenic concentrations were detected in soil at the smelter and the DHA site in 1991.

Unusual Features (utilities, terrain, etc.): The site is bounded by Westmoreland Rd. on the west, Hampton Rd. on the east, Canada Dr. and the West Fork of the Trinity River on the north, and Singleton Blvd., on the south. The usual overhead and underground utilities associated with residential developments are present.

History (worker or nonworker injury, complaints from public, previous agency action): See "operations" description above.

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3. Site Classification

SITE TYPE ALLOCATED: ☐ 1 ☒ 2 ☐ 3

COMMENTS: _____

4. Hazard Evaluation

CHEMICAL HAZARDS:

SUBSTANCE* NAME	PHYSICAL STATE	KNOWN CONCENTRATION LEVELS PRESENT**	POTENTIAL ROUTES OF EXPOSURE	OSHA PEL
Lead	Solid - soil, dust	max. <200 mg/kg	Inhalation; skin contact	0.05 mg/m^3
Arsenic	Solid - soil, dust	max. <20 mg/kg	Inhalation; skin contact	0.05 mg/m^3
Asbestos	Solid - materials (DHA Site only)	Building mat. 35%	Inhalation; skin contact	0.2f/cc

* Attach MSDS if available.

** Attach laboratory results or tables if available.

PHYSICAL SAFETY HAZARDS ON-SITE (e.g., heat or cold stress, confined spaces, explosion hazards, slippery ground, excavations, etc.); Falling materials; traffic congestion; excavation hazards; dilapidated and structurally compromised buildings, underground and overhead utilities; lead and other particle dust and cold stress. Persons working outdoors in low temperatures especially at or below freezing are subject to cold stress. Fingers, toes, and ears are the most susceptible to damage. Persons working in excessively hot conditions are subject to heat stess.

SITE HEALTH AND SAFETY PLAN

1. General Information

PROJECT: Dallas Housing Authority (DHA) **PROJECT NUMBER:** 50-01535.04

SITE LOCATION: Edgar Ward Place **PROJECT MANAGER:** Doug Roming

PREPARED BY: Kim Golden **DATE:** May 6, 1994

APPROVED BY: _____ **(PM)** _____ _____ **(HSC)**

DATE: February 8, 1995 _____ _____

TEAM MEMBER	RESPONSIBILITIES
Michael Whitehead	RMT/JN Local Site Health and Safety Representative
Doug Roming	Site Supervisor
Michael Bohmfalk	Sampling, oversight

2. Training and Medical Surveillance

TRAINING LEVEL REQUIRED: ☐ 1 ☒ 2 ☐ 3

MEDICAL SURVEILLANCE LEVEL REQUIRED: ☒ 2 ☐ 3

Special Medical Tests Required: None. RMT/JN employees participating in asbestos abatement activities will be qualified medically in accordance with EPA, OSHA, and TDH requirements.

EXCEPTIONS/MODIFICATIONS TO TRAINING OR MEDICAL SURVEILLANCE REQUIRED: Specialized training is required for asbestos workers. In addition, the person(s) overseeing excavation activities must be qualified in accordance with Subpart P of 29 CFR § 1926.

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3. Personal Protection

Based on evaluation of potential hazards, the following levels of personal protection have been designated for the applicable work areas or tasks:

LOCATION	JOB FUNCTION	LEVEL OF PROTECTION
Edgar Ward Place	Collect shallow soil samples with trowel or hard auger.	[D]
Soil and demolition materials sampling	Collect soil samples, and samples of building materials.	[C] or [D]
Verification sampling	Collect shallow soil samples using a trowel or hard auger.	[D]
Demolition and excavation oversight	Oversee contractor performing demolition/excavation activities.	[C]* or [D]
Air monitoring	Collect air samples upwind and downwind of excavation and demolition areas.	[D]

*** Level C may be required if dusty conditions exist during sampling, excavation, and demolition, and when asbestos-containing materials are sampled. During asbestos abatement, Level C will be required in the designated abatement area.**

SPECIFIC PROTECTIVE EQUIPMENT FOR EACH LEVEL ARE AS FOLLOWS:

Level A **SCBA or Air-Line Supplied Air Respirator** **Fully-encapsulated Suit Type:**	**Level C** **Air-Purifying Respirator** **Cartridge/Canister Type:** **Full-face/Half-mask**
	Half-face APR with HEPA filters and equipment listed below for Level D.
Level B **Supplied Air Respirator**	**Level D**
	• Hard hat during drilling, excavation, and demolition activities. • Safety glasses or goggles • Steel-toed shoes/boots • Disposable coveralls *(cotton) • Inner chemical-resistant gloves (latex) • Outer work gloves • Reflective vests for work adjacent to roadways

*Disposable coveralls are required when contact with contaminated soil and media cannot be avoided -i.e., the drillers and individuals who handle demolition materials or enter excavations will wear disposable coveralls.

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The following materials are required for protective equipment:

PROTECTIVE EQUIPMENT	MATERIAL
Coveralls	Cotton (i.e, tyvek)
Inner gloves	Latex

CRITERIA FOR CHANGING PROTECTION LEVELS:

Change:	Approvals Required*		
	HSR	HSC	CHSD
To Level C when dusty conditions exist in potentially contaminated areas.	X		
To Level C when asbestos materials are sampled/abated.	X		
To Level C when particulate concentrations exceed 2.5 mg/m^3	X		
To Level _ when			
Evacuate the area when:			

Changes to the level of protection shall be made after the required approvals are obtained. All changes shall be recorded in the field log and reported to the HSC as soon as possible.

* HSR: On-Site Health & Safety Representative
HSC: Health & Safety Coordinator
CHSD: Corporate Health & Safety Director

4. Air Monitoring

The following monitoring instruments shall be used on site to measure airborne contaminant concentrations in the breathing zone:

	FREQUENCY OF MONITORING
[ ] Combustible Gas Indicator	N/A*
[ ] O_2 Monitor	N/A*
[ ] Calorimetric Tubes (type)	N/A
[ ] Hnu	N/A
[ ] OVA	N/A
[x] Other (specify): A miniram particulate air sampling system will be used at upwind and downwind positions from excavation and demolition areas.	Daily during sampling, demolition, and excavation activities.

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*** If entry into an excavation, building, or any other area is considered a confined space, monitoring with the CGI and O_2 monitor will be required in accordance with 29 CFR § 1910.146**

5. Site Control (Describe or attach sketch)

WORK ZONES:

Support Zone: A support zone will be established at each work location, upwind from the location, if possible. A permanent support area will be established at the site upon arrival.

Contamination Reduction Zone: A contamination reduction zone will be established at each work location. A decontamination area will be established for the site.

Exclusion Zone: An exclusion zone will be established at each sampling, excavation, and demolition area. Access to these areas will be limited to those necessary to conduct work tasks.

SITE ENTRY PROCEDURES: All employees will check in with the site supervisor prior to initiating each day's activities. Employees will enter only those areas authorized for entry by DHA.

DECONTAMINATION PROCEDURES:

Personnel: Employees will remove their gloves and respirators (if worn) and wash their hands and faces before taking a break. To leave the site, employees will clean their boots, remove their disposable coveralls, remove their respirators (if worn), remove their outer and inner gloves, and wash their hands and faces.

Equipment: Trowels and sampling equipment will be decontaminated between the collection of each sample using a detergent solution (Alconox) wash followed by a potable water rinse and a final distilled water rinse. Downhole drilling equipment (i.e. augers) will be steam cleaned between the drilling of each soil boring. A decon pad will be established in accordance with the Work Plan.

INVESTIGATION - DERIVED MATERIAL DISPOSAL: Disposable clothing and equipment will be collected and containerized in 55-gallon drums. All decontamination water will be collected and containerized in 55-gallon drums. The drums will be labeled with the date, contents, sample location, and sample interval. Drums will be staged in a secure area to avoid potential exposure to the community.

WORK LIMITATIONS (time of day, etc.): All work shall be conducted during daylight hours. All utilities will be cleared prior to beginning drilling activities. Any permits required to work near the roadway or conduct excavation, drilling, or demolition activities will be obtained.

6. Contingency Planning

LOCAL EMERGENCY RESOURCES:

		Phone Number
Ambulance:		911
Hospital Emergency Room:		911
Poison Control Center:		(214) 590-5000
Police:		911
Fire Department:		911
EPA Contact:	Carlos Sanchez	(214) 665-8507
Other:		

SITE RESOURCES:

Water Supply:	Dallas Water Utilities Dept.	(214) 774-5005
Telephone:	Southwestern Bell Telephone	Dial 611
Radio:	N/A	N/A
Other:	TU Electric	(214) 653-1311

EMERGENCY CONTACTS:

RMT/JN Project Manager:	Doug Roming	(w) (214) 490-8696 (h)
RMT/JN Local Health & Safety Coordinator	Michael Whitehead	(w) (214) 490-8696 (h)
RMT/JN Regional Health & Safety Coordinator:	Kim Golden	(w) (800) 580-9840 ext. 158 (h) (512) 440-8024
RMT/JN Corporate Health & Safety Director:	Chris Hansen	(w) (608) 831-1989 ext. 297 (h)
Client Contact:		
Other:		

EMERGENCY ROUTES (Give directions or attach map):

Hospital: Parkland Memorial (214) 590-8000
5201 Harry Hines Blvd., Dallas, Texas

or

St. Paul's Hospital (214) 879-1000
5909 Harry Hines Blvd., Dallas, Texas

Map Attached.

Other:

EMERGENCY PROCEDURES:

If an emergency develops at the site, the discoverer will take the following course of action:

- Notify the proper emergency services (fire, police, ambulance, etc.) for assistance.
- Notify other affected personnel at the site.
- Contact RMT/JN and the client representative to inform them of the incident as soon as possible.
- Prepare a summary report of the incident for RMT/JN and the client representative.

EMERGENCY EQUIPMENT REQUIRED ON-SITE:

[x] First Aid Kit:	[x] Fire Extinguisher: on heavy equipment and with steam cleaner.
[ ] Eye Wash:	[ ] Spill Control Media:
[ ] Shower:	[ ] Other:

APPENDIX D

RESUMES

FOR

BUILDING DEMOLITION PROJECT

EDGAR WARD PLACE

DALLAS HOUSING AUTHORITY

DECEMBER 1994

RMT INC. /JONES & NEUSE

DAN MUELLER, P.E.
Branch Manager, Dallas, Texas

EXPERIENCE

Dan has 15 years of experience in areas of industrial and hazardous waste management issues including RCRA and CERCLA driven investigations. Dan has managed numerous Superfund projects (both federal and state-lead sites) and has been involved with all phases of Remedial Investigations, Feasibility Studies, and Remedial Design. In recent years, Dan has been actively involved with environmental projects at refineries and petrochemical facilities, and industrial/municipal waste management projects.

As Branch Manager for RMT/Jones and Neuse's Dallas office, Dan is responsible for overseeing projects undertaken in north/east Texas, Oklahoma, Arkansas, and New Mexico. He manages all marketing efforts, directs project managers, and assists other RMT/JN offices in projects covering his expertise involving hazardous and industrial waste issues.

KEY PROJECTS

Dallas Housing Authority (DHA), (Texas)
Project Manager: Project manager for a site involving lead contamination from a nearby smelter operation. The goal of the project has been to determine/evaluate levels of lead contamination, associated risks to residents in the area, and the development of a Hazard Ranking Score (HRS) for the site. This information has been used to advise the client of potential involvement by EPA and the ramifications of that involvement. All work on this project followed CERCLA guidance and protocol because during the course of this project the site has been included on the National Priority List (NPL). Major aspects of this project included:

- CERCLA Risk Assessment;
- Remedial Investigation/Feasibility Study;
- Hazard ranking using EPA methods;
- Remedial action based on remedial investigation and feasibility study; and
- Litigation support.
- Site remediation including building demolition and soil removal.

PEMEX, (Mexico)
Project Manager: Technical Director and Project Manager for three compliance audits at acrylonitite plants owned and operated by PEMEX. These audits involved the assessment of each facility in terms of both United States and Mexican environmental regulations with the final results being the development of a plan of action (including preliminary cost estimates) for bringing each facility into full environmental compliance.

Exploration and Production Site Investigation
Project Manager: Project manager for site investigation and pond closures at oil and gas exploration production facilities for a major oil firm. Project was initiated as a result of property divestiture and addressed potential surface and groundwater contamination. The facilities were located in both Oklahoma and Kansas and the site investigations addressed applicable federal and state regulations of each site.

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Gilbert Mosley NPL Site (Kansas)
Project Manager: Project manager for the Feasibility Study phase of the project addressing a groundwater contaminant plume currently extending almost four miles and underlying the central business district of a major mid-west city. Remedial action based on the RI/FS is currently being performed.

Dickies Industrial Services, (Texas, Georgia, And California)
Project Manager: Performed Phase I, II, and III environmental services at seven sites across the U. S. Tasked to perform audits, write portions. of these reports, deal with regulatory personnel (e.g., TNRCC, formerly the TWC). Oversight of soil gas survey and installation of monitor wells. Development of plan and oversight of remedial program to address 300 cubic yards of contaminated soil as a result of a UST release. Completed TNRCC reimbursement fund application and worked with TNRCC to ensure that client received payment.

PPG Works No. 4 and 5, (Texas and Pennsylvania)
Project Manager: Large glass manufacturing facilities in which environmental sampling was conducted as part of Phase II investigation. Investigation included sampling around ASTs and USTs. Tasks included installation of monitor wells, hand auguring to collect shallow soil samples, surface water and sediment sampling, data evaluation, and report writing. Part of initial interview in selection process with client at Texas site.

Highlands Acid Pit NPL Site (Texas)
Project Manager: Project manager for the Highlands Acid Pit hazardous waste cleanup project that entailed the evaluation of groundwater contamination and its possible effect on area aquifers and surface water bodies.

Federal Facilities Technical Support, (Various)
Project Manager: Project manager for a Federal Facilities project tasked with reviewing site investigation and remedial action reports prepared for EPA by various contractors. The review tasks included specific comments back to EPA concerning the thoroughness of the investigations and recommendations on any additional study required.

Zexel Manufacturing, (Illinois)
Project Manager: Project manager on a PCB site in Illinois involving subsurface investigations and potential surface water contamination.

Intercontinental Manufacturing, (Texas)
Project Manager: Project manager for wastewater evaluation at a major defense contractor's manufacturing facility. The investigation addressed contamination in excess of IPP standards in the facilities wastewater discharge.

As a follow-up to this project, a stormwater pollution prevention plan was developed. As part of this plan, recommendations were made concerning facility operation and facility modification to assure compliance with federal stormwater regulations.

Compliance Audits (General)
Project Manager: Project manager and technical director for regulatory compliance audits for clients in Texas and Kansas. The audits addressed all federal, state, and local regulatory issues including wastewater, stormwater, and air emissions, solid waste, toxic waste, and industrial discharge concerns. As a result of the information gathered in these projects, many have been expanded to include other facilities under clients jurisdiction.

Underground Storage Tank Investigations (General)
Project Manager: Project manager on numerous underground storage tank investigations. He recently completed a multi-state project involving site evaluation and subsurface investigations. Contamination (both soil and groundwater) from leaking underground storage tanks was investigated and remedial measures implemented. He has supervised tank testing activities and subsequent reports evaluating possible contamination resulting from leaking underground storage tanks. Mr. Mueller has provided oversight for tank removal operations including sampling of the excavated area to assess possible contamination and provide recommendations on site closure.

Environmental Site Assessments (General)
Project Manager: Project manager and technical director for numerous environmental site assessments. These projects have involved both Phase I and Phase II activities. He has performed subsurface investigations necessitated from the review of the historical data collected as part of the site assessments. These investigations were designed to delineate contaminant migration and to evaluate proper remedial actions.

EDUCATION/ TRAINING

- Bachelor of Science in Biology; University of Texas at Austin; Austin, Texas; 1978.
- Bachelor of Science in Civil Engineering; University of Texas at Austin; Austin, Texas; 1980.
- Master of Science in Civil Engineering; University of Texas at Arlington; Arlington, Texas; 1989.
- 40-hour Health and Safety Training.
- 8-hour Supervisory Training.

REGISTRATIONS/ CERTIFICATIONS

Professional Engineer, State of Texas No.56852; 1985.

PROFESSIONAL AFFILIATIONS

Society of Petroleum Engineers (SPE)
American Society of Civil Engineers (ASCE)
National Water Well Association (NWWA)
American Water Resources Association (AWRA)
Texas Groundwater Association
Hazardous Materials Control Resources Institute (HMCRI)

PUBLICATIONS/ PRESENTATIONS

Mueller D., *Case Study of Air Emissions at Industrial Waste Treatment Facilities*, Air and Waste Management Association, Annual Meeting (1993).

Mueller D., "Compliance with Mexican Environmental Regulations," United States-Mexico Chamber of Commerce Conference (1993).

Mueller D., Panel Discussion on Environmental Aspects Relating to Working in Mexico, Mexican Real Estate Seminar, Dallas and San Antonio (1992).

Mueller D., *Multi-State Phase I/II Site Assessment: Comparison of Cost vs. Size/Scope/Location*, National Groundwater Association, Environmental Site Assessments: Case Studies and Strategies (August 1992).

Mueller D., "Compliance Audits," Texas Association of Metropolitan Sewerage Agencies (November 1990).).

Mueller D., L. Bradley, *Water Distribution System Modeling Utilizing An Integrated Database Management System*, International Conference on Water and Wastewater, China (July 1989).

Mueller D., E. Crosby, *Comparison of Microcomputer Base Groundwater Transport Models*, National Water Well Association, Solving Ground Water Problems with Models Conference, Indianapolis, Indiana (February 1989).

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RMT, Inc. /JONES & NEUSE

ALEX ONJANOW, P.E.
Senior Project Manager

EXPERIENCE

Alex has 18 years of continuous experience in Civil/Environmental Engineering, encompassing all environmental media. Experience includes working for the Texas Natural Resource Conservation Commission (TNRCC) and its predecessor agencies and in consulting. At the TNRCC, Alex was unit head of the design engineering unit of the superfund section. In his capacity he started and implemented the remedial design/remedial action program for state lead NPL superfund sites. During his tenure, the first three state lead NPL sites were remediated in Texas. At that time less than 10 sites nationwide had undergone remediation. At RMT/Jones and Neuse, Inc., Alex manages major remediation projects for superfund, enforcement cases, and RCRA and solid waste closures.

KEY PROJECTS

Shell Refinery, Product/Groundwater Recovery System, (Odessa, Texas). May, 1991 - May, 1993.
Project Manager: Mr. Onjanow was project manager for the design and implementation of an interceptor trench and groundwater recovery system consisting of approximately 6,000 LF of piping and 44 withdrawal wells. As project manager, he was responsible for the development of design plans, development of the bid package, contractor selection and implementation of construction. The total contract value for this project was approximately $1,600,000.

General Tire, Site Remediation, (Waco, Texas). June, 1992 to Present
Project Manager: The project involves the remediation and closure of various process and waste disposal areas at a former tire manufacturer. As project manager, Alex developed the workplans for remediation and closure plans for areas that were being treated insitu and exsitu. RMT/JN staff provided independent oversight and collected all verification samples. Field work was under my direct supervision. Final site closure will require development of a certification report. The total contract value for this project is approximately $500,000.

General Tire/Dynagen, Solar Evaporation Pond Closure, (Odessa, Texas).
Project Manager: General Tire is in the process of closing 163 acres of solar evaporation ponds (SEPs). RMT/JN has been conducting tests on the ponds to determine the characteristics and to determine the most cost effective closure method. As project manager, Mr. Onjanow developed workplans and final reports for the Phase I (water), Phase II (sludges) and Phase III (pilot tests) of the SEP's. The total contract value for this project has been approximately $600,000.

WR Grace & Co., Drum Repackaging at Chemical Enterprises, Inc. (Odessa, Texas). October - November 1989.
Project Manager: Alex was project manager for corrective action involving the overpacking of over three hundred fifty drums of 2,4,5-T contaminated soil and liquids at the Chemical Enterprises Inc. (CEI) in Odessa, Texas. He prepared all cost estimates, sampling plan, assisted on the Health and Safety Plan and QA/QC plan; contracted and evaluated laboratory for herbicide analysis; and prepared report of sampling and cost estimates for storage

options. The total contract value for this project was approximately $200,000.

Curtis C. Gunn, Inc., UST Remediation, (San Antonio, Texas). June - August 1991.
Project Manager: As project manager for the remediation of 12,000 cy of soil contaminated with waste oil from a former automobile dealership, Alex was responsible for preparing all cost estimates; bidding documents for hiring of subcontractors; preparing the removal plan; and oversight of all remediation. He also prepared a remediation report, and the package for reimbursement. The total contract value for this project was approximately $570,000.

Estate of H.H. Coffield, Tank Sampling and Removal, (Minerva, Texas). November, 1990 - May, 1992.
Project Manager: This project involved the sampling of 23 above ground storage tanks and the subsequent disposal of the tanks and the contents. As project manager, Alex developed the sampling, Health and Safety, QA/QC plans, removal work plans and was responsible for implementation of the removal action. The total contract value for this project was approximately $400,000.

Pride Refinery, Landfill Closure, (Abilene, Texas). December, 1991 to February, 1992.
Project Manager: Pride Refining Company requested bids to close a RCRA landfill on site. The objective was to construct a cap and a groundwater monitoring system in an area which had no detailed geological information available. As project manager, Mr. Onjanow prepared the bid, negotiated with the client and was responsible for implementation by the construction of a 3-foot clay cap with synthetic liner, drainage layer, topsoil and vegetation. Alex also prepared the certification report upon completion of the closure. The total contract value for this project was approximately $270,000.

Texas A&M University System (TAMUS), Underground Storage Tank (UST) Removals, (Statewide). On-going.
Project Manager: RMT/JN was retained by TAMUS to manage removal of up to 180 UST removals at 89 different locations for their thirteen member institutions. Removal has been implemented by development of plans and specifications (P&S) for removals and site closures. RMT/JN has acted in a traditional AE role as the owners representative for this project. Alex is responsible for development of the P&S and oversight and independent certification of closure of each UST area. The total contract value for this project is approximately $800,000.

TANDY, Groundwater Recovery Trench, (Forth Worth, Texas). April, 1992 to May, 1992.
Project Manager: RMT/JN was hired by Tandy to construct a system to recover a plume of tetrahydrofuran in clay rich soils. RMT/JN followed plans prepared by another consultant and installed a 650 LF trench with a bentonite/cement bottom, stainless steel pipe, one manhole, and HDPE liner at depths of 8-12' below grade. Soils removed from the trench were sent for

off-site disposal at a hazardous disposal facility. As project manager, Alex procured services of subcontractors and directed the implementation. The total contract value for this project was approximately $1,100,000.

Estate of H.H. Coffield, Area M and Creek Remediation, (Minerva, Texas). November, 1992.
Project Manager: This project involved removal and construction of a temporary holding cell for 1500 cy of lead contaminated soils/sediments generated from a creek. As project manager, Mr. Onjanow developed the remediation work plan, solicited bids from subcontractor selected subcontractors, and provided oversight of implementation of the remediation activities. After remediation, Alex prepared a report for submittal to the TNRCC document the remediation. The total contract value for this project was approximately $155,000.

Zia Minerals, Inc., Metals Recovery Plant, (Caldwell, Texas). June 1993 to May, 1994.
Project Manager: Zia Minerals, Inc. (ZTT) hired RMT/JN to assist them in the development of the process to recover metals from a liquid brine stream so the the metals could be recovered in their metals recycling process. As project manager, Mr. Onjanow established the scope of work and budget with the client; oversaw the preparation of the performance specifications for the Metals Recovery Plant (MRP); assisted in the selection of vendors; negotiated vendor performance contracts; oversaw the preparation of system plans and specifications; and was directly responsible for implementation of the construction of the MRP system. The total contract value for this project was approximately $700,000.

Geneva Industries Superfund Site, Remedial Design/Remedial Action, (Houston, Texas).
Design Engineering Unit Head: The Geneva Project involved the demolition of numerous tanks and site facilities, excavation and removal of up to 10,000 cy of PCB contaminated soil and the construction of a 10 acre RCRA Cap. As head of the unit responsible for implementation of remedial action for NPL sites Mr. Onjanow was the project director for the TNRCC for implementation. Specific duties involved plan, implement grants and state contracts for consultants and contractors; supervised the preparation of plans, specifications and bid documents; advertised, evaluated and awarded contracts; and oversaw and verified the remediation activities. Total contract value for this project was approximately $20,000,000.

Highlands Acid Pit Superfund Site, Remedial Design/Remedial Action, (Highlands, Texas).
Design Engineering Unit Head: The highlands acid pit involved the excavation and backfill of a peninsula in the San Jacinto River. It was contaminated with up to 20,000 cy of petrochemical contaminated soils. As head of the unit responsible for implementation of remedial actions for NPL sites, Alex was the project director for the TNRCC for implementation. Specific duties involved plan, implement grants and state contracts for consultants and contractors; supervised the preparation of plans, specifications and bid documents;

advertised, evaluated and awarded contracts; and oversaw and verified the remediation activities. Total contract value for this project was approximately $5,000,000.

Triangle Chemical Company Superfund Site, Remedial Design/Remedial Action, (Orange, Texas).
Design Engineering Unit Head: The triangle chemical company consisted of a former chemical formulating facilities that produces various organic based chemical products. As such, the site contained numerous tanks, buildings and soils contaminated with organics. The remediation included decontamination of all tanks and structures and soil aeration. As head of the unit responsible for implementation of remedial actions for NPL sites, Mr. Onjanow was the project director for the TNRCC for implementation. Specific duties involved plan, implement grants and state contracts for consultants and contractors; supervised the preparation of plans, specifications and bid documents; advertised, evaluated and awarded contracts; and oversaw and verified the remediation activities. Total contract value for this project was approximately $750,000.

Bioecology Superfund Site, Remedial Design/Remedial Action, (Grand Prairie, Texas).
Design Engineering Unit Head: The bioecology remedial action involved the excavation, solidification, construction of a temporary holding cell, and the construction of a 10 acre RCRA landfill for approximately 60,000 cy of soils contaminated with inorganics. As head of the unit responsible for implementation of remedial actions for NPL sites, Alex was the project director for the TNRCC for implementation. Specific duties involved plan, implement grants and state contracts for consultants and contractors; supervised the preparation of plans, specifications and bid documents; advertised, evaluated and awarded contracts; and oversaw and verified the remediation activities. Total contract value for this project was approximately $6,000,000.

EDUCATION/ TRAINING

B.S. in Civil Engineering, State University of New York at Buffalo, 1976

Chemical Oxidation of Wastewater, Houston, TX, March, 1994.

Corrective Action for Containing and Controlling Groundwater Contamination, Durham, North Carolina, May 1992.

Air Surveillance for Hazardous materials, U.S. Environmental Protection Agency, Dallas, TX., June, 1987.

Personal Protection and Safety, U.S. Environmental Protection Agency, Oklahoma City, Oklahoma, November, 1984.

Geotechnical Engineering for Waste Disposal Projects, The University of Texas, Austin, TX, September, 1984.

REGISTRATIONS/ CERTIFICATIONS

State of Texas Professional Engineer #54481, 1983

TNRCC LPST Corrective Action, Project Manager #CAPM00315, 1994

399837

EXPERIENCE

As an Environmental Specialist for RMT/Jones and Neuse, Inc., Mr. Roming has been responsible for the technical construction and management aspects of various projects. Specific projects have included: Performance of numerous statewide emergency spill responses and management of remedial activities, supervision of remedial activities and closures of numerous underground storage tanks, supervision of remedial activities and closures of numerous hazardous and non-hazardous waste sites, site investigations, sampling, and extent of contamination evaluations for the determination of remediation alternatives, remediation of underground sumps at wood treatment facilities, remedial investigation/feasibility studies of State and Federal Superfund sites, numerous Phase I and Phase II environmental site assessments, sampling and remedial activities for the cleanup of PCB-contaminated soils, remediation and closure of numerous hazardous and nonhazardous waste surface impoundments, and development of closure plans for various municipal and industrial solid and hazardous waste facilities.

KEY PROJECTS

Dallas Housing Authority, (Dallas, Texas).
Environmental Specialist. This project consisted of compliance monitoring, regulatory coordination, and construction management for remediation of lead contaminated soil and apartment buildings. The site owned by the Dallas Housing Authority was identified as an Operable Unit of a much larger Superfund site. A contractor was selected to perform the remediation work. The remediation effort totaled more the $7,000,000 and was on a six-month schedule. RMT/JN's responsibility consisted of managing the remediation contractor and to verify compliance with EPA approved work plans, TNRCC disposal requirements, and project plans and specifications.

Dowell Schlumberger Incorporated, (Borger Texas Facility).
Environmental Specialist: This project consisted of the removal of two underground storage tanks, three oil/water separators, demolition of two warehouses and an acid formulation plant. The project was structured towards the clean closure of the areas by means of excavation, transportation and disposal of all contaminated medias. During the remediation of the areas, characteristically hazardous waste was uncovered. Therefore, the wastes were stabilized to nonhazardous class II standards. Following this activity the waste was reclassified and disposed as a class II waste.

Owens Corning Fiberglass, (Amarillo Texas Facility).
Environmental Specialist: This project consisted of the excavation transportation and disposal of approximately 2000 cubic yards of sludge from a process wastewater surface impoundment. During the initial sampling of the waste for characterization purposes, analytical data indicated the waste was consistent with class I nonhazardous parameters due to heavy metal concentrations. Therefore, the waste was stabilized with a line/cement mixture to prevent the leaching of the metals. Following the stabilization of the wastes, additional samples were collected and analyzed for the constituents of concern. Based on the laboratory data, the waste was reclassified to class II nonhazardous and disposed at a municipal landfill.

Dal-Tile Corporation, (Van Horn, Texas Facility).
Environmental Specialist: The scope of the project consisted of the removal of approximately 120,000 lbs. of lead bearing wastewater filter cake beneath approximately 80' of mine tailings. The abandoned mine tailings were excavated to a point where the waste was encountered. At this point, all "contact" soil was staged for subsequent sampling and analysis. Following removal of all contact soils, the waste was excavated, loaded onto DOT approved transport and shipped back to the generator for recycling as opposed to hazardous waste disposal. this process saved the client in excess of 300.00/cubic yard. Following the removal of all wastewater filter cake, the remaining "contact". Soils were excavated and stockpiled for characterization purposes. A total of 4000 cubic yards of soil were generated. Based on the analytical data and waste classification only approximately 1800 cubic yards of soil required off site disposal. The area was then leveled to grade and clean closure status was given to the site by the regulatory agencies.

Ideal Corporation, (Waco, Texas).
Environmental Specialist: The scope of this project consisted of the removal of two 6000 gallon USTs and a wood treatment sump using an excessively flammable mixture of pentachlorophenol, naphtha, mineral spirits. The areas were cleaned prior to removal then removed and clean closed. All work associated with the treatment sump was performed within confined space under level B protection. The generated liquid wastes were coordinated through a permitted fuels blending facility for disposal as opposed to an commercial incinerator, thus decreasing the overall project costs by the client. Following the submittal of all documents and reports the facility was issued clean closure status by the regulatory agencies.

Gavlon Paints, (Austin, Texas).
Environmental Specialist: The scope of the project was to explore an area believed to have received drums containing solvents and paint residue. The area was excavated and a total of 18 drums were discovered that did contain liquid wastes. Following removal of the drums while remaining intact, the drums liquids were sampled for characterization purposes. Upon receipt of the data, the drum contents were determined to be characteristically hazardous. Therefore, the waste was profiled, transported and disposed at a fuels blending facility to reduce the overall project costs. Additionally, all contact soils were sampled and classified as a class II nonhazardous waste as opposed to a hazardous. This activity saved the client approximately 200/cubic yard in disposal fees. Following closure of the are and submittal of documents, the facility was issued clean closure by the regulatory agencies.

EDUCATION/ TRAINING

Bachelor of Science in Agricultural Education; Texas A&M University, College Station, Texas; May, 1984.

Health and Safety Training for Hazardous Waste Site Operations, 40 hours; Austin, Texas; October, 1988.

Texas Water Commission Type A License for the installation and repair of

underground storage tanks; January, 1991.

Texas Water Commission Type B License for the removal of underground storage tanks; January, 1991.

Supervisors Health and Safety training for Hazardous Waste Site Operations, eight hours; Austin, Texas; April, 1991.

Hydrogen Sulfide Safety Training - 1991

RMT INC. /JONES & NEUSE

MICHAEL L. WHITEHEAD
Environmental Specialist

EXPERIENCE

Michael has eight years of experience in a wide spectrum of environmental projects. This experience includes site investigation and remediation oversight such as soil classification, wastewater effluent disposal systems (spray irrigation and rapid infiltration basins), wastewater treatment plant tracer studies, land disposal of sludge, landfill design testing (permeability testing of cap and liner), site assessments, compliance audits, soil, soil gas, groundwater, surface water, and sediment studies, underground storage tank services, RCRA investigations/support, and CERCLA site investigations (RI/FS, remedial design and site remediation). Michael has worked on various project that have included extensive regulatory interaction involving both the federal (EPA) and state (Texas and Oklahoma) agencies.

KEY PROJECTS

Dallas Housing Authority (DHA), (Texas)
Environmental Specialist: Proposed NPL site in south Dallas. Integral part of project team responsible for the initial contract, reports, meetings, and sampling for this client over the last two years. Field sampling included approximately 900 soil samples, several monitor wells, indoor dust, and tap water. Soil samples were analyzed by the XRF technique to speed the sampling/analysis procedure. Wrote major portions of RI, FS, Removal Action Plan (RAP), and project plans. FS, work plans, and RAP have been reviewed by the EPA and "approved". Aided toxicologist in several aspects of Risk Assessment. Project plans included Health & Safety Plan, Field Sampling Plan, Sampling and Analysis Plan, and RI Workplan. Meetings have included DHA personnel, DHA board, EPA, and Dallas Morning News. RAP outlines remedial plan to address removal of over 70,000 cubic yards of contaminated soil, on-site treatment of soil via stabilization, and demolition of over 150 building units. Project is currently in its remediation stage. RMT/JN will provide oversight services for the remedial phase.

PEMEX, Mexico
Environmental Specialist: Managed field sampling and audit teams for compliance audit conducted at three acrylonitrile plants in Mexico. Sampling included soil and groundwater. Conducted meetings with PEMEX personnel in both Mexico and the U. S. Wrote major sections of compliance audit reports. Conducted meetings with SEDESOL regarding various aspects of the project.

Dickies Industrial Services, (Texas, Georgia, and California)
Environmental Specialist: Performed Phase I, II, and III environmental services at seven sites across the U. S. Tasked to perform audits, write portions of these reports, deal with regulatory personnel (e.g., TNRCC, formerly the TWC). Oversight of soil gas survey and installation of monitor wells. Development of plan and oversight of remedial program to address 300 cubic yards of contaminated soil as a result of a UST release. Completed TNRCC reimbursement fund application and worked with TNRCC to ensure that client received payment.

AT&T, (Various Sites in Texas).
Environmental Specialist: Oversight of UST removals at several UST sites in east Texas. Sampled soil from tank pit and conducted soil gas survey at one site to evaluate the horizontal extent of contaminated soil.

PPG Works No. 4 and 6 Plants, (Texas and Pennsylvania)
Environmental Specialist: Large glass manufacturing facilities in which environmental sampling was conducted as part of Phase II investigation. Investigation included sampling around ASTs and USTs. Tasks included installation of monitor wells, hand auguring to collect shallow soil samples, dwelling surface water and sediment sampling, data evaluation, and report writing. Part of initial interview in selection process with client at Texas site.

City of Lewisville, Texas.
Environmental Specialist: Tracer testing and determination of trihalomethanes (THMs). Tracer tests were conducted to determine detention times of chlorine in various basins of the plant. THM testing was set up at plant.

IMC Pittman, (Pennsylvania).
Environmental Specialist: Determination of sludge loading rates based on (PADER) guidelines.

Logan Aluminum, (Kentucky)
Environmental Specialist: Evaluation of spray irrigation system used for disposal of wastewater effluent. Investigation included extensive soil testing including in-situ soil permeability using the Guelph Permeameter.

City of Marble Falls, Texas.
Environmental Specialist: Evaluation of sites for spray irrigation. Evaluation included excavation of soil pits, and permeability testing as outlined in the EPA guidance manual.

Leadville, Colorado.
Environmental Specialist: EPA Superfund site in which area had been contaminated from various metals. Site was primarily residential encompassing the entire City of Leadville, Colorado. Soil samples were collected throughout the area and analyzed on site for various metals including lead. Electron microprobe analysis was used for selected samples to determine the source(s) of contamination. Mr. Whitehead was responsible for soil sampling and periodic operation of XRF equipment used to analyze metals.

KMC Site, New Hampshire.
Environmental Specialist: Responsible for soil and groundwater sampling (Level C), soil gas survey, and identification of wetland areas at this Superfund site. Test pits were used to collect soil cores in the vertical and horizontal directions to evaluation fate and transport mechanisms of several chlorinated compounds (vinyl chloride, TCA, TCA and PCE).

Keefe Environmental Services, (New Hampshire).
Environmental Specialist: Superfund site in which soil, soil gas, and groundwater samples were collected and analyzed. Responsible for excavation and evaluation of soil in test pits, soil, soil gas, and groundwater sampling. A great deal of the work was performed at Level C.

Central Artery Project, (Massachusetts).
Environmental Specialist: Soil sampling for PCBs and dioxins. Soil contamination resulted from cutting of transformers at a metal scrap yard.

Schaffer Landfill, (Massachusetts).
Environmental Specialist: Responsible for evaluation of the landfill cap. Conducted infiltration testing with SDRI and permeability testing with Guelph Permeameter.

Ogden Martin, Haverhill Landfill (Connecticut).
Environmental Specialist: In-situ testing of clay liner to determine infiltration rate of water.

Martin K. Eby Construction Co., (Texas and Kansas).
Environmental Specialist: Sampling of soil and oversight of soil gas survey at Kansas site. Oversight of removal of USTs and screening of soil with Miran portable infrared laboratory (field analysis of TPH) at Texas site.

Ogden Martin Ash Landfill, (Connecticut).
Environmental Specialist: Landfill testing of ash to evaluate quality of leachate. Installed lysimeter to sample leachate.

Thatcher Glass, (New Jersey)
Environmental Specialist: Testing of various lysimeters for the sampling of soil water in the vadose zone at this large glass facility. Testing was to determine applicability of lysimeters to sampling of petroleum compounds.

Gulf Metals, (Texas)
Environmental Specialist: State Superfund site in south Texas. Prepared one of the project plans for the RFI.

Sierra Blanca Site, (New Mexico).
Environmental Specialist: Superfund site in which primary contamination was cyanides in the soil and groundwater. Conducted field sampling and oversight of monitor well installation.

Phase I Environmental Site Assessments (ESAs)
Environmental Specialist: Performed numerous ESAs at sites for banks and investment groups for industrial and commercial properties.

Grande Valley, (Quitman, Texas)
Environmental Specialist: Soil and groundwater investigation at gas gathering facility. Primary focus was to evaluate subsurface contamination as a result of plant operations (underground piping, USTs, waste pits, etc.). Facility stores and fractionates gas products. Crude petroleum is an off-product of this process.

EDUCATION/ TRAINING

B.S., Soil Science, University of Florida, Gainesville

M.S., Soil Chemistry, University of Florida, Gainesville

40-hour Health and Safety Training

8-hour Supervisory Training

Gas Chromatogory Training Course, East Connecticut State University

REGISTRATIONS/ CERTIFICATIONS

Certified Soil Scientist through ARCPACS

PUBLICATIONS/ PRESENTATIONS

"Effect of Soil Type and Sludge Source on the Mineralization of Nitrogen and Mineralization Potentials," May 1985.

"Soil Salinity in an Abandoned Tomato Field in Lee County, Florida," Soil and Crop Science Proceedings of Florida.

"Soil Penetrometer Resistance, Bulk Density and Water Content Comparisons of a Soybean Tillage Experiment," submitted to soil and Tillage Research.

"Effect of Sludge Amendment on Soil Nitrogen Mineralization, pH, and EC," prepared for Journal of Environmental Quality (in review).

Whitehead, M.L. and T.A. Pedersen, 1990. "Rapid Method for Determining Wetting Front Advance During in Situ Permeability Testing of Landfill Liner and Caps," Presented at WPCF Specialty Conference.

Whitehead, M.L. and C.H. Burnett, 1991. Marble Falls Land Applications System, Presented at Texas WPCF.

Whitehead, M.L. and R.W. Chappell, Ph.D., 1992. Utilization of X-Ray Fluorescent (XRF) Spectrometry for the Rapid Determination of Lead in Soils. Presented at SSSA Conference in Minneapolis, MN.

RMT INC. /JONES & NEUSE

Michael D. Bohmfalk
Environmental Technician

EXPERIENCE

As an Environmental Technician for RMT/Jones and Neuse, Inc., Mr. Bohmfalk has been responsible for the technical aspects of projects related to environmental matters. Specific projects have included: Supervision of remedial activities and closures of numerous underground storage tanks, supervision of remedial activities and closures of numerous hazardous and non-hazardous waste sites, site investigations, sampling, and extent of contamination evaluations for the determination of remediation alternatives, numerous Phase I and Phase II environmental site assessments, sampling and remedial activities for the cleanup of PCB-contaminated soils, and coordination and implementation of field activities for numerous groundwater monitoring events.

KEY PROJECTS

Dallas Housing Authority, (Dallas, Texas).
Environmental Technician. This project consisted of compliance monitoring, regulatory coordination, and construction management for remediation of lead contaminated soil and apartment buildings. The site owned by the Dallas Housing Authority was identified as an Operable Unit of a much larger Superfund site. A contractor was selected to perform the remediation work. The remediation effort totaled more the $7,000,000 and was on a six-month schedule. RMT/JN's responsibility consisted of managing the remediation contractor and to verify compliance with EPA approved work plans, TNRCC disposal requirements, and project plans and specifications.

Dowell Schlumberger Incorporated, (Mission, Texas Facility).
Environmental Technician: This project consisted of the closure of surface impoundments and associated oil/water separators. The project included excavation, transportation and disposal of all contaminated medias. Clean closure of all areas was granted following the remediation activities.

General Tire, Inc. (Waco, Texas Facility).
Environmental Technician: This project consisted of the oversight of remedial activities associated with the cleanup of PCB (polychlorinated biphenyl) contaminated medias and TPH (total petroleum hydrocarbons) contaminated soils. The remediation efforts included the excavation, transportation, and disposal of all PCB contaminated media, the excavation and bio-remediation of all TPH contaminated soils, on-going operation of groundwater bio-remediation, cleaning, removal, or in place closure of storm water sewer lines, cleaning and in place closure of oil/water separators, and closure of two surface impoundments. RMT/JN's responsibility consisted of managing the remediation contractor, characterization of wastes, assessments of contaminated areas, TPH verification sampling, and PCB verification sampling in accordance with EPA protocol.

Fina Oil and Chemical Company, (Big Spring, Texas Facility).
Environmental Technician: Projects for this client include the following: coordination and implementation of field activities associated with quarterly groundwater monitoring events; collection of soil samples from land farm unit on quarterly basis; characterization, remediation, transportation and disposal of

chromium contaminated soils; characterization, remediation, transportation and disposal of drums containing vinyl toluene tar and diglycol amine; and packaging, characterization, transportation, and disposal of laboratory waste over-pack containers.

Shell Oil Company, (Odessa, Texas Facility).
Environmental Technician: Projects for this client have included coordination and implementation of field activities associated with quarterly ground water sampling events and remediation of lead contaminated spent bender catalysts. Groundwater events consisted of the collection of groundwater samples from groundwater monitoring wells in accordance to TNRCC established protocols. Lead contaminated spent bender catalyst remediation consisted of the stabilization, sampling, characterization, re-classification, transportation, and disposal of the spent bender catalyst.

Texas A&M University System, (College Station , Texas and Prairie View, Texas).
Environmental Technician: These projects consisted of the supervision of the remedial activities and closures associated with the removals of 30 underground storage tanks ranging in size from 100 gallons to 33,000 gallons. Activities included removal of the UST's in accordance to Local and State regulations, collection of verification samples, management, transportation, and disposal of contaminated soils, and closure of the tank pits according to closure plan specifications.

EDUCATION/ TRAINING

Bachelor of Science in Wildlife and Fisheries Science; Texas A&M University, College Station, Texas; December, 1989.

OSHA; Health and Safety Training for Hazardous Waste Site Operations, 40 hours; Houston, Texas; October, 1990.

OSHA; Hydrogen Sulfide Safety Training, Austin, Texas, October, 1991

Texas Water Commission Type B License for the removal of underground storage tanks; March, 1992.

First Aid/CPR Training and Certification, Dallas, Texas, 1994.

39846

Appendix B

Stormwater Pollution Prevention Plan (SWPPP) for the Dallas Housing Authority Edgar Ward Place

398847

Storm Water Pollution Prevention Plan - Narrative

1.0 Introduction

Demolition of 129 apartment-style buildings is proposed in Edgar Ward Place in the area east of Holystone Road (Figure 1-1). Edgar Ward Place is one of three housing areas within the Dallas Housing Authority's (DHA) West Dallas Development located in Dallas, Texas. The DHA site has been designated as Operable Unit (OU) 2 of the RSR Corporation site, which is proposed for addition to the National Priorities List. Demolition activities at the DHA site has involved soil and building removal in George Loving Place (the housing area south of Edgar Ward Place). Demolition activities in the Edgar Ward Place will be limited to buildings and other site improvements. Soil sampling data from Edgar Ward Place indicated that the soil in this area of the DHA does not exhibit elevated concentrations of lead, arsenic, or cadmium and thus soil remediation will not be conducted.

As part of the demolition process, a Storm Water Pollution Prevention Plan (SWPPP) was developed for Edgar Ward Place in accordance with the, "Final NPDES General Permits for Storm Water Discharges From Construction Sites; Notice" as published in the September 9, 1992 Federal Register. A SWPPP is required by the U.S. Environmental Protection Agency (EPA) for construction projects in which an area of five or more acres is disturbed. The SWPPP consists of the narrative presented herein and construction plans detailing the design of storm water prevention structures.

The SWPPP addresses current site conditions and activities required during and after demolition to minimize pollution generated from storm water runoff. Development of the SWPPP was based on information provided in the above referenced Federal Register and the North Central Texas Council of Governments (NCTCOG) manual (February 1993) entitled, "Storm Water Quality Best Management Practices for Construction Activities". The NCTCOG storm water manual was developed in accordance with EPA guidelines as well as locally established guidelines in storm water pollution control.

Insert Figure 1-1 - Site Map DHA - Edgar Ward Place

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Changes to this or other portions of the SWPPP may be required during the project due to variations in site conditions, schedule, available equipment, or other conditions. These changes must be documented as part of the plan or part of this narrative within seven days of the decision to change. The revised controls must be in place within seven days of the revision to the SWPPP. The contractor shall notify the Owner or Owner's representative of any change in the SWPPP as presented in this document or the plan. The Owner will review the change and notify the contractor within 48 hours of approval or disapproval of the change. No notice of action within 48 hours constitutes approval of the change. If deemed a significant change by the Owner (as defined in the Notice of Intent) or Owner's representative, a registered professional engineer with experience in storm water management shall review the proposed changes and amend the SWPPP as feasible.

2.0 Project Information

This section of the SWPPP narrative provides a brief description of the project and includes : 1) type of project; 2) general site location; 3) pre-development runoff coefficient; 4) size of tract; and 5) preliminary schedule. The owner of the facility is the DHA. The principle contact for the DHA for this project is Mr. Tim Lott. Mr. Lott can be contacted at 214-951-8315. The design engineer for this project is RMT/Jones and Neuse, Inc. (RMT/JN). The project manager is Doug Roming. Mr. Roming is located in the Dallas office at RMT/JN and can be contacted at 214-490-8696.

Type of Project

The project scope consists of the demolition of 129 apartment-style buildings, demolition and partial removal of streets, sidewalks and other features, and the partial removal of trees in an area of approximately 85 acres in Edgar Ward Place. Contaminated soil is not expected to be encountered due to the initial sampling activities. Following building demolition, removal of existing improvements, and remediation (if required), the site will be regraded and seeded with a grass mixture to return the site to a native state.

General Site Location

Edgar Ward Place is part of the approximately 500 acre DHA West Dallas Development which includes two other housing areas, George Loving Place and Elmer Scott Place. Edgar

Ward Place comprises the northern part of the DHA site. With one exception, only the eastern portion of Edgar Ward Place (east of Holystone Road) will be included in the demolition. The eastern portion of Edgar Ward Place is bounded by Holystone Road to the west, Canada Drive to the North, Hampton Road to the East and Bickers Street to the south (Figure 1-1). The area in the eastern portion that will be excluded in the demolition is a two block area bounded by Leath Street on the north, Goldman Street on the east, Bickers Street on the south and Applegrove Street on the west. The area of Edgar Ward Place west of Holystone Road and the drainage ditch emptying into the West Fork of the Trinity River is currently inhabited and will also be excluded in the demolition.

Pre-Development Runoff Coefficient

According to City of Dallas drainage design criteria, the runoff coefficient for the site is 0.80. This is based on multi-family zoning, that is characteristic of this site.

Size of Tract

The area of the proposed demolition is approximately 85 acres. All of this area will be potentially disturbed during the demolition. To allow for flexibility, the demolition activities will occur as a single phase.

Preliminary Schedule

A preliminary schedule for the project is approximately 200 days. This schedule will be updated monthly as part of maintenance of the SWPPP to identify the current stage of demolition and the appropriate storm water measures implemented.

3.0 Existing Site Conditions

Edgar Ward Place consists of 129 apartment-style buildings, several paved roadways, concrete sidewalks, and limited areas of open space. All of the buildings within the proposed area of demolition have been abandoned. The structural integrity of several of these buildings is very poor due to past fire and/or water damage. The building foundations

are intact on all buildings. General permeability at the site is limited due to the presence of considerable impermeable surface area such as building foundations, sidewalks, and pavement (roadways and parking areas). Demolition of building structures will reduce both overall and peak runoff from the site.

Site Vegetation

The vegetation identified in Edgar Ward Place includes a variety of grasses, shrubs, and trees. Although both common Bermuda grass and St. Augustine grass were identified at the site, much of the area consists of native grasses. There are patches of bare soil in high traffic areas. Numerous shrubs are present around building structures. Most of these shrubs appear to have been planted at the site as part of the landscaping. There are a number of large oak and cottonwood trees throughout Edgar Ward Place.

Soil Type

The soils at Edgar Ward Place and throughout the DHA site include the Houston Black-Urban land complex, Trinity-Urban land complex, and Urban land as determined by the SCS. Although the majority of the DHA site is mapped by the SCS as Urban land, the soil upon inspection (i.e., soil sampling to a depth of 2 feet) appears to belong to the Trinity soil series. The USDA textural classification of the Trinity soil series is clay with some loamy clays. Most of these soils have been disturbed and coarse-grained fill in the form of sand is present at some locations. The soils in Edgar Ward Place area consist predominantly of the Trinity-Urban land complex. This complex consists of moderately alkaline, dark gray to black clay soils that were formed from recent alluvial deposits on flood plains.

The SCS classifies the Trinity-Urban land complex as belonging to the hydrologic soil group D. Group D soils have a high runoff potential and very low infiltration rates when thoroughly wetted. These soils consist predominantly of clays with high swelling potential. These soils have a very low rate of water transmission (0 to 0.05 inches/hour).

Existing Site Drainage

Edgar Ward Place is relatively flat with slopes of less than 2 percent. The topographic is gradient to the north and northwest towards the Trinity River and West Fork drainage, respectively. Surface water drainage can be expected to be rather slow with ponding prevalent during rainfall events of moderate intensity. Surface water flows are currently controlled by storm drains located throughout the development. The storm drains empty into the West Fork drainage culvert just west of Holystone Road. During periods of high rainfall, temporary flooding occurs. Flooding was observed in both paved and open areas.

The West Lagoon was once located on the DHA property southwest of Edgar Ward Place, just south of Bickers Avenue. This lagoon was removed as part of the drainage improvements made by the City of Dallas to the area.

4.0 Hazardous Materials to be used Onsite

Contractors equipment fuel and lubricants are a necessary part of the demolition and will be the only materials onsite which could be considered hazardous. However, the majority of these materials will not be stored onsite.

5.0 Erosion and Sediment Controls

This section of the SWPPP discusses the methods (i.e., Best Management Practices or BMPs) that will be utilized at the site to control erosion and sediments. These controls are differentiated into: 1) non-structural controls; 2) structural controls; and 3) maintenance controls. To reduce unnecessary costs and the potential for erosion and sediment loss from the site, the demolition operations will be performed in one continuous phase as shown in the plan documents. The Best Management Practices (BMPs) detailed in this SWPPP will be implemented prior to demolition. Stabilization of the ground surface of Edgar Ward Place may require application of temporary grass seeding, mulch or continued maintenance of structural controls called for in this SWPPP until completion of the demolition and revegetation of the site.

With the minimal gradient at Edgar Ward Place, erosion is expected to be minimal, except during storms of high intensity. Consequently the SWPPP is designed to minimize any silt from reaching the storm sewers.

Any fugitive dust that settles on streets will be swept clean or a regular basis. Additional dust control measures are discussed in Section 01562 of the construction specifications and are incorporated into this SWPPP by reference.

Non-Structural Controls

Due to the minimal topographic slope of Edgar Ward Place the application of mulch may not be required for erosion control. However, if heavy precipitation occurs mulch may be used to temporarily stabilize the surface.

Mulching is the application of a layer of chopped straw, hay or other material which is spread uniformly over barren areas to reduce the effects of erosion from rainfall. Types of mulch include organic materials, straw, wood chips, bark or other fibers. In the north central Texas area, the application of mulch should be approximately 2 tons dry straw or hay per acre spread uniformly across the disturbed area. Other material should be applied such that 25% of the soil is visible through the mulch (Storm Water Quality Best Management Practices, 1993).

Structural Controls

Storm water runoff controls shown on the plans will be installed in the areas of construction before construction progresses into the specific area. These controls will consist of Straw Bale Dikes

The dikes will be constructed in a location topographically down-gradient of the specific areas where construction activities are occurring. There will be no retention ponds or interceptor swales constructed at Edgar Ward Place.

A straw bale dike is a temporary barrier constructed of straw bales anchored with wood or metal posts, that is used to intercept potentially sediment-laden runoff generated by construction/ demolition activities in small disturbed areas (Storm Water Quality Best

Management Practices, 1993). The straw bales can serve as both a filtration device and a dam/dike device to treat and redirect flow. Bales can consist of hay or straw in which straw is defined as best quality straw from wheat, oats or barely, free of weed and grass seed and hay is defined as straw which includes weed and grass seed.

Due to the limited life of the straw bale, it is cost effective for small projects of a short duration. The limited weight and strength of the straw bale makes it suitable for small, flat (< 2 percent slope) contributing drainage areas.

Due to a short effective life caused by biological decomposition, straw bales must be replaced after a period of no more than 3 months. During the wet and warm seasons, however, they must be replaced more frequently as is determined by periodic inspections for structural integrity.

Straw bale dikes are not to be used with concentrated flows of any kind except for small check flows in which they can serve as a check dam.

Daily maintenance of straw bale dikes is important to ensure the effectiveness for reducing sediment runoff. Improperly maintained, straw bales can have a negative impact on the water quality of the runoff. Straw bales shall be replaced if there are signs of degradation such as straw located downstream from the bales, structural deficiencies due to rotting straw in the bale or other signs of deterioration. Sediment should be removed form behind the bales when it reaches a depth of approximately 6 inches.

Design Criteria

- Straw bale dikes are to constructed along a line of constant elevation (along a contour line.)
- Straw bale dikes are suitable only for treating sheet flows across grades of 2% or flatter.
- Maximum contributing drainage area shall be 0.25 acre per 100 linear feet of dike.
- Maximum distance of flow to dike should be 100 feet or less.

- Dimensions for individual bales shall be 30 inches minimum length, 18 inches minimum height,
- 24 inches minimum width and shall weigh no less than 50 pounds when dry.
- Straw bales shall be installed in such a way that there is no space between bales prevent seepage.
- Individual bales shall be held in place by at least two wood stakes driven a minimum depth of 6 inches to undisturbed ground, with the first stake driven at an angle toward the previously installed bale.
- The ends of the dike shall be turned upgrade to prevent bypass of storm water.
- Place bales on sides such that bindings are not buried.

Straw bales can be removed after the construction activities are completed.

Storm Drain Controls

Sediment filter boxes or grit traps will be constructed on all of the storm drain inlets at Edgar Ward Place. Silt fences are not required around the storm drains.

These sediment filters will be constructed of an outer boundary of straw bales anchored together by bailing wire. The straw bales will be constructed flush with the road and curb surfaces and extend upward approximately 13 inches. The bales will be designed and constructed to totally surround the storm drain inlet.

Packed on the interior of the straw bales will be gravel. The gravel will be supported adjacent to the straw bales with 1/4 to 1/2 inch wire mesh. The gravel pack will be approximately 8 inches thick and 12 inches high around the interior of the straw bales.

Storm drain inlet protection shall be maintained throughout the course of demolition and grading operations. Maintenance may required removal of accumulated silt and/or replacement of the hay bales. At the completion of demolition and grading operations in each sub area, hay mulch may be used to provide temporary stabilization. Storm drain inlet protection can be removed after the entire operation is complete and revegetated.

Waste Management Controls

In addition to sediment and erosion control systems on the site, waste management practices are required to reduce potential storm water pollution at the site. Most of these practices are "common sense" good housekeeping practices which not only benefit the environment, but reduce material losses and complaints from adjacent residents. The following measures serve a guideline. Additional measures may be required to address unforseen chemicals or waste conditions. The contractor shall notify the Owner within 48 hours of potential conditions not addressed in this document in order to evaluate the pollution potential and methods to reduce the risk of storm water contamination.

HAZARDOUS CHEMICALS

Hazardous Materials Used On-Site

No hazardous materials will be present on-site during the demolition operation. Materials such as fuel, oil, lubricants, fertilizers, pesticides will be present on the service vehicles that will be operated at the site.

Other materials which can be considered hazardous may include pole-mounted electrical transformers and light ballasts that are located throughout Edgar Ward Place. Electrical transformers may potentially contain polychlorinated biphenyls (PCBs). Based on the PCB concentration in the transformer, the liquid may be classified as either PCB contaminated (PCB content of 50 to 499 mg/Kg) or as a PCB transformer (PCB content of 500 mg/Kg or greater). Mercury vapor lamps have also been observed on light poles at the DHA site. A survey of Edgar Ward Place will be conducted to determine the number and location of overhead lights attached to poles. The contents of the lamps will then be determined. Transformers and mercury vapor lamps will be removed before building demolition occurs.

Containment of Materials

Materials such as fertilizers and pesticides shall be kept in closed, air-tight containers until ready for use. These containers shall be protected from rain by storing in an enclosed area or the containers shall not be brought to the site until needed (probably the end of the project).

Fuel shall be kept in an area enclosed by an earth berm which provides the volumetric capacity of the fuel container. This fuel enclosure area shall have a polyethylene lining. Fueling shall be performed using due care to reduce potential spills.

Oil changes shall be permitted on the site provided that operations are undertaken to prevent spills. Used oil shall be containerized and transported to an used automotive oil collection station for proper disposal. Other uses of oil shall be under controlled conditions with small quantities (1 quart containers). Oil contaminated soil shall be removed from the site. Oil shall not be washed into the existing storm drain system.

Spill Procedures

The site operator or his representative shall notify the appropriate authority immediately in the event of a hazardous waste spill. Both the City of Dallas and the US EPA should be notified of waste spills and methods to be used to contain the spill in accordance with the General Permit.

Employee Information

The contractor shall provide posted information at the site to notify employees of pollution prevention procedures and the measures employed at the site to address pollution. Employees not adhering to the pollution prevention policies should be removed form the site.

Demolition Waste Disposal

Demolition waste includes concrete, bricks, fixtures, asbestos containing material (ACM) and other waste from demolition.

Onsite Collection and Storage

Demolition waste material generated at the site (such as wood, bricks, etc.) will be removed and disposed of off site in accordance with the project specifications. Any waste containers shall be located away from drainage ditches, swales or other locations which

collect runoff. The trash container(s) shall have solid sides and top to prevent contact between rain /runoff and waste material. Containers will be emptied on a regular basis and disposed of in an acceptable manner.

Portable sanitary waste facilities shall be provided for construction workers and other field personnel. These shall be maintained and cleaned on a regular basis.

Field personnel will be briefed on waste management issues to reduce littering on site. The site shall be policed daily to remove litter and debris.

Disposal

Disposal locations for demolition debris and miscellaneous waste material will be determined based on waste classifications defined by guidelines set by the Texas Natural Resource Conservation Commission (TNRCC).

MAINTENANCE OF SWPPP CONTROLS

Schedule

All controls shall be maintained in good operating order during the course of construction. Structural and non-structural controls shall be inspected thoroughly once each week and after a significant rainfall event (0.5 inches or greater at the construction site). Any damaged control shall be repaired or replaced within 48 hours.

Maintenance Requirements for Controls

Records of control maintenance shall be required throughout the project. These records shall be maintained with this document and the storm water pollution prevention plan for reference and review by the EPA and local officials.

Specific maintenance requirements for controls are described in the description of the structural controls above.

Permanent Stabilization

Upon completion of demolition activities, grading will be required to meet the requirements of the final grading plan. Areas disturbed shall be stabilized with grass. Any structural controls should be removed prior to the course of vegetation establishment.

Landscaping

Landscaping measures include seeding of the site with grass as defined in the construction specifications.

Drainage Measures

The site will be graded to direct the majority of drainage flow into the existing storm drains at the site.

Post Development Runoff Coefficient (C)

The post development runoff coefficient will be 0.40 based on the City of Dallas drainage criteria for park type development. This results in a 50% reduction in the calculated runoff from the site over pre-demolition conditions.

EPA ID # 3Y0999636

FACILITY NAME Building Demolition Specification for DLA Edgar Ward Place Dallas, TX February 1995

MAP/OTHER

(See Non-Scanned Objects for Location and Description)

Building Drawings Asbestos Containing Materials Abatement

SING AUTHORITY

WARD PLACE

BUILDING DRAWINGS

ASBESTOS CONTAINING MATERIALS

ABATEMENT

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